



Geotechnical and Geoenvironmental Report

Site: Ysgol Gymraeg Santes Tudful,
Merthyr Tydfil

Prepared For: Merthyr Tydfil County Borough Council

Issue Date: March 2025

Job No: 18167

REPORT TITLE : **Geotechnical and Geoenvironmental Proposed 'Flying Start' Building, Ysgol Gymraeg Santes Tudful, Merthyr Tydfil**

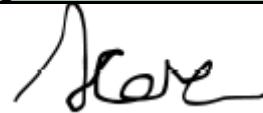
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01	12 th March 2024	DRAFT ISSUE
02	3 rd January 2025	Completion of gas monitoring with recommendations for further assessment and alteration to recommended remediation measures for combustible colliery spoil.
03	11 th March 2025	Update to Section 2.3.4

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Executive Summary

Site Location and Proposed Development	Merthyr Tydfil County Borough Council (the Client) is proposing the development of a new 'Flying Start' facility/building at Ysgol Gymraeg Santes Tudful, Pantyffyn Road, Merthyr Tydfil, CF47 0HU.																																						
Site History	The site was occupied by undulating land, associated with the Garw Pit, from at least 1875 to 1993. From 1993 to early 2000s, the site was unoccupied, and then to present day occupied by land associated with Ysgol Gymraeg Santes Tudful.																																						
Geology	South Wales Lower Coal Measures Formation - Grey, (productive) coal-bearing mudstones/siltstones, with seatearths and minor sandstones. Above the bedrock is glacial till and colliery spoil covers.																																						
Radon	No radon protective measures are necessary in the construction of new dwellings or extensions.																																						
Ground Conditions	<table border="1"> <thead> <tr> <th colspan="3">Depth (m)</th><th>Thickness (m)</th><th>Stratum</th></tr> </thead> <tbody> <tr> <td>0.00</td><td>-</td><td>0.70/1.20</td><td>0.70/1.20</td><td>MADE GROUND: Soft to firm light brown mottled black and orangish brown variably sandy variably gravelly CLAY.</td></tr> <tr> <td>0.7/1.2</td><td>-</td><td>1.0/3.0</td><td>0.30/1.60</td><td>MADE GROUND: Firm black slightly sandy variably gravelly CLAY of colliery spoil.</td></tr> <tr> <td>1.0/2.8</td><td>-</td><td>6.0/7.4</td><td>3.00/5.40</td><td>Firm to stiff* dark brown/light bluish grey variably gravelly variably sandy CLAY.</td></tr> <tr> <td>6.0/7.4</td><td>-</td><td>21.2/30.2</td><td>1.40/3.70</td><td>Interbedded grey MUDSTONE & SANDSTONE (Rotary Open Hole - Drillers Description) Soft drill/backfilled workings encountered between 8.0/9.7 – 10.8 -12.7 And 21.2-22.5 (BH03 only)</td></tr> <tr> <td>21.20/30.20</td><td>-</td><td>22.50/31.80</td><td>1.30/3.00</td><td>Possible BACKFILLED WORKINGS / BROKEN GROUND/ COAL SEAM (Rotary Open Hole - Drillers Description)</td></tr> <tr> <td>30.30/31.80</td><td>-</td><td>>40.00</td><td>Unconfirmed</td><td>Interbedded grey MUDSTONE & SANDSTONE (Rotary Open Hole - Drillers Description)</td></tr> </tbody> </table>				Depth (m)			Thickness (m)	Stratum	0.00	-	0.70/1.20	0.70/1.20	MADE GROUND: Soft to firm light brown mottled black and orangish brown variably sandy variably gravelly CLAY .	0.7/1.2	-	1.0/3.0	0.30/1.60	MADE GROUND: Firm black slightly sandy variably gravelly CLAY of colliery spoil.	1.0/2.8	-	6.0/7.4	3.00/5.40	Firm to stiff* dark brown/light bluish grey variably gravelly variably sandy CLAY .	6.0/7.4	-	21.2/30.2	1.40/3.70	Interbedded grey MUDSTONE & SANDSTONE (Rotary Open Hole - Drillers Description) Soft drill/backfilled workings encountered between 8.0/9.7 – 10.8 -12.7 And 21.2-22.5 (BH03 only)	21.20/30.20	-	22.50/31.80	1.30/3.00	Possible BACKFILLED WORKINGS / BROKEN GROUND/ COAL SEAM (Rotary Open Hole - Drillers Description)	30.30/31.80	-	>40.00	Unconfirmed	Interbedded grey MUDSTONE & SANDSTONE (Rotary Open Hole - Drillers Description)
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Coal Mining Risk Assessment	The geological maps indicate that the Gellideg and Garw coal seams underlie the site, and the Coal Authority report confirms that there is a spine roadway beneath the site. The report states that there are probable shallow unrecorded workings beneath the site. The exploratory investigation has confirmed there is a risk to the site's stability from workings in the Seven Feet and Five Feet coal seams. There is also a risk from the spine roadway that passes beneath the site.																																						
Contamination of Concern	All soil substances tested for were found to be present at concentrations below their respective human health threshold level.																																						
Combustible Colliery Spoil	The colliery spoil encountered on site is considered at risk of being combustible. Consequently, suitable remediation measures should be taken. Detailed remediation measures should be outlined in a remediation strategy.																																						
Ground & Mine Gas Risk Assessment	Dependent upon the risk from potentially combustible colliery spoil being mitigated to prevent gases being produced, the site is classified as 'Gas Characteristic Situation 1' (CS1) meaning no mitigation measures are required based on the risk from infilled land. However, gas screening values and point scoring approach system as per BS8485 is not appropriate to assess the risk from mine gas, which will need further assessment.																																						
Foundation Solution	Prior to the site being developed, it is recommended that the shallow workings should be stabilised by drilling and grouting. A Drilling and Grouting Specification report will need to be produced specifically for the needs of the site development. Following successful stabilisation of the old workings a reinforced concrete raft foundation founded within the competent made ground can be employed. The raft should be designed to span a residual void of 1.5m with a cantilever effect on corners of 1.0m.																																						
Recommended Further Works	In summary the following additional work is recommended. 1. Stabilisation of shallow mine workings by drilling and grouting. 2. Additional assessment of mine gas risk. 3. Remediation strategy.																																						

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Drawing 02	Coal Authority Plan SW1430 1 of 2 in relation to site
Drawing 03	Coal Authority Plan 16532 1 of 2 in relation to site

SECTION 1 Introduction and Proposed Development

1.1 Introduction

Merthyr Tydfil County Borough Council (the Client) is proposing the development of a new 'Flying Start' facility at Ysgol Gymraeg Santes Tudful, Pantyffyn Road, Merthyr Tydfil, CF47 0HU.

TFW Group Limited (Terra Firma) has been commissioned by the Client to undertake a geoenvironmental assessment and geotechnical investigation of the site.

The main objectives of the geoenvironmental assessment programme are:

- Investigate the potential human health and environmental liabilities at the site associated with any contamination.
- Provide a summary of the human health and environmental conditions at the site, together with any necessary further intrusive works and / or remediation works to render the site fit for its intended use.

The main objectives of the geotechnical site investigation are:

- Investigated the type, strength and bearing characteristics of the shallow superficial and underlying solid geology.
- Investigate the risk, if any, from historical shallow underground mining features
- Provide engineering foundation and floor slab recommendations for the proposed development.
- Provide infiltration rates and stormwater drainage viability.
- Provide recommendations regarding any other geotechnical aspects pertaining to the development.

In order to achieve the above objectives, TFW Group Ltd carried out an assessment programme including a site walkover, a review of existing data, followed by a field investigation to collect geotechnical and geoenvironmental data from selected locations.

1.2 Limitations and Exceptions of Investigation

The Client has requested that a Geoenvironmental Site Assessment (GSA) and Geotechnical Investigation (GI) be performed to enable the outlined main objectives.

The GSA and GI were conducted, and this report has been prepared for the sole internal reliance of the Client and their design and construction team. This report shall not be relied upon or transferred to any other parties without the express written authorisation of TFW Group Ltd. If an unauthorised third party comes into possession of this report, they rely on it at their peril and the authors owe them no duty of care and skill. The report represents the findings and opinions of experienced geoenvironmental and geotechnical consultants. TFW Group Ltd does not provide legal advice and the advice of lawyers may be required.

The subsurface geological profiles, any contamination and other plots are generalised by necessity and have been based on the information found at the locations of the exploratory holes and depths sampled and tested.

1.3 Quality Assurance

The quality and environmental aspects of the assessment comply with TFW Group Ltd business management system which is UKAS Accredited to ISO 9001:2015 and ISO 14001:2015 standards.

SECTION 2 Review of Existing Data

2.1 Physical Setting and Current Site Use

The development site is irregular in shape and locates at Ysgol Gymraeg Santes Tudful, Pantyffyn Road, Merthyr Tydfil, CF47 0HU. The site centres on an approximate National Grid Reference of 305760, 206280, occupying a plan area of approximately 0.12 Hectares.

The site consists mainly of an area of soft landscaping/embankment within the grounds of the primary school.

Site boundaries are defined by hedgerows and trees to the north and east, and a school access road to the south and west.

The surrounding area is a mixture of residential buildings, fields, and woodland. Further afield, Ffos-y-Fan opencast coal pit is present approximately 600m to the east.

The average site elevation is approximately 252m AOD and is relatively flat across the majority of the site, but steeply sloping to the north of the site from the approximate centre (from 252m to 254m AOD).

The site location can be seen on **Figure 2.1** along with the proposed site layout on **Figure 2.2**.



Figure 2.1 Site Location

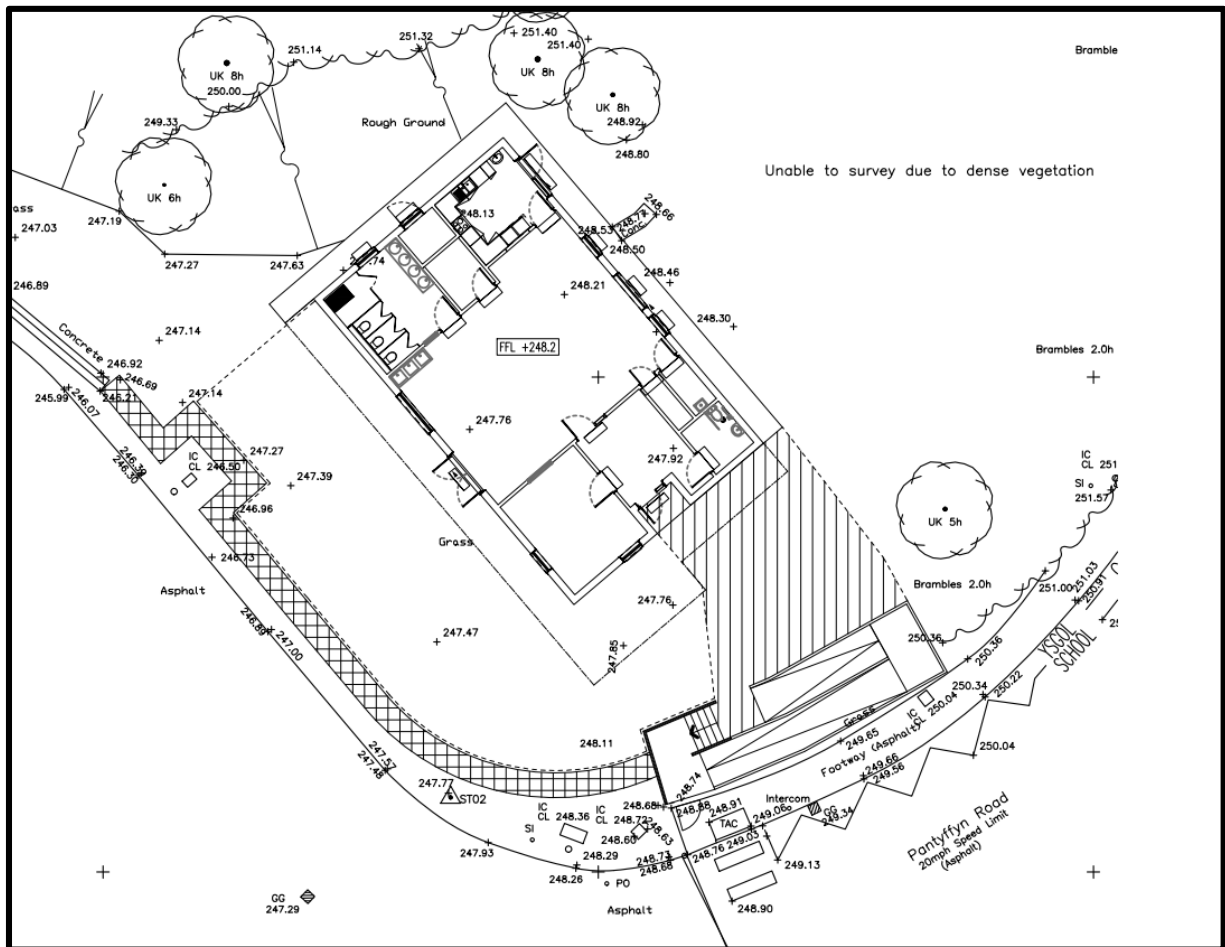


Figure 2.2 Proposed Site Layout

2.2 Site History

Historical maps of the site have been obtained in an Envirocheck Report, provided by Landmark Information Group. The history plans are supplied in **Annex A** of this report, and the most relevant editions are summarised in **Table 2.1**. Distances, where quoted are approximate, and any changes in-between map editions may not be recorded.

Table 2.1 Historical Development from Map Information

Map Edition & Scale	Key Features on Site	Key Features off Site
1875-1882 (1:2,500)	The site is seen to be occupied by undulating land, associated with the Garw Pit (a disused ironstone pit). A tramway, that splits off into two tracks and then runs southwest to either northeast or the east, intercepts through the southwestern corner of the site.	Old Coal Levels are recorded directly adjacent to the site to the east. A shaft, associated with the Garw Pit, is recorded approximately 75m to the northeast. Two springs are recorded approximately 15m and 50m to the southwest, respectively. Multiple reservoirs are recorded approximately 90m to the northeast, with a larger reservoir recorded approximately 140m to the northwest/west. Old Ironstone Levels are recorded approximately 210m to the east. Dowlais Railway, that runs southwest to northeast, is recorded approximately 210m to the southeast/east. Lodge Pit (a disused coal and ironstone pit) is recorded approximately 220m to the north. The site is otherwise mostly surrounded by fields. Undulating land, potentially comprising of colliery spoil is recorded 100m to the north and expands at least 250m to the northeast.
1900 (1:2,500)	The track, that runs from southwest to northeast, is no longer recorded; this area of the site is now recorded to be a footpath. The site otherwise remains unchanged.	The previously identified springs are no longer recorded. The larger reservoir approximately 140m to the east is now recorded as an "old reservoir". A coal level lies 60m to the west at the end of the tramway. The surrounding area otherwise remains mostly unchanged.
1904 (1:2,500)	The site remains unchanged.	The surrounding area remains mostly unchanged.
1919 (1:2,500)	The remaining split of the tramway is no longer recorded, with the tramway now only bisecting the southwest corner of the site and terminating to the west. The site otherwise remains unchanged.	The previously identified Old Ironstone Levels are no longer recorded. The Old Coal Levels are no longer recorded, but undulating lands remain on the map. Lodge Pit is also no longer recorded. A large residential development is recorded approximately 150m to the west/southwest.
1938 (1:10,560)	The site remains unchanged.	The surrounding area remains mostly unchanged.

1945 (Aerial Photography)	The tramway appears to no longer be recorded entirely and appears to be replaced by a track.	The undulating land recorded to the north appears to be a large slag / colliery spoil heap.
1957 (1:1,250)	The tramway is confirmed to no longer be recorded and is replaced by a track/trail. The site remains to be recorded as undulating (sloped) land.	The smaller reservoirs are no longer recorded. The larger reservoir is now recorded as 'marsh land'. The undulating land to the north is now recorded 200m to the north, with a large colliery spoil heap (as per 1945 aerial photography) 250m to the north.
1969-1977 (1:1,250) *1973 **1969	The site remains unchanged.**	The previously mentioned colliery spoil heap is no longer recorded*. A large housing development is recorded 50m to the north/northwest.**
1975 (1:1,250)	The western area of the site is now recorded as part of a disused tip. Otherwise, the site remains unchanged.	The previously mentioned undulating land directly adjacent to the west is now recorded as a disused tip (same tip recorded on site).
1982-1988 (1:10,000)	The site remains unchanged.	The surrounding area remains mostly unchanged.
1993 (1:1,250)	The undulating land and tip are no longer recorded on site. The site is now mostly comprised of unoccupied land with the previously mentioned track/trail.	All previously mentioned undulating land, and the disused tip, is no longer recorded. An electric substation is recorded approximately 140m to the northwest.
2000 (Aerial Photograph)	The site remains unchanged.	The surrounding area remains mostly unchanged.
2006 (1:10,000)	The site remains changed.	The surrounding area remains mostly unchanged.
2023 (1:10,000)	The site is now recorded as within the grounds of Ysgol Gymraeg Santes Tudful as an area of soft landscaping.	The grounds of Ysgol Gymraeg Santes Tudful is recorded directly adjacent to the site at the west/south, with the closest building associated approximately 30m to the west.
*1973 **1969		

2.3 Geological Setting

2.3.1 Geology

The 1:50,000 (Sheet 231) and 1:10,560 (SO00NE) scale British Geological Map of the area was consulted for geology underlying the site. Detailed stratigraphical information is provided in **Table 2.2**.

Table 2.2 Detailed Stratigraphical Information

Period	Group	Formation
Carboniferous	South Wales Coal Measures Group	South Wales Lower Coal Measures Formation - Grey, (productive) coal-bearing mudstones/siltstones, with seatearths and minor sandstones.

Strata are typically dipping 6° to the southeast in the local area according to the 1:10,560 scale geological map.

Superficial deposits are recorded as glacial till, comprising a mixture of clay, sand, gravel, and boulders.

Made ground is anticipated at the site, likely comprising of colliery spoil and ironstone waste tip material, but to an unknown depth. According to the 1:10,560 scale geological map, the superficial deposits on site are recorded to be “made ground”, mainly spoil from coal and ironstone workings”.

The conjectured outcrop of the Gellideg coal seam is recorded to the west of the site. The Consultants Report records this outcrop 23m from the site. Given the 8° dip to the southeast indicated by the 1:10,560 scale geology map, it is considered that this coal seam is likely to lie beneath the site at shallow depth and is of a workable thickness. A spot level for the Gellideg coal seam shown close to the east boundary of the site shows the Gellideg coal seam to be at a depth of 236m AOD. Ground level at the site is 252m AOD and because of the regional dip the seam will likely have descended to less than 236m AOD beneath the site.

Located just above the Gellideg in the stratigraphical sequence are the Five Foot and Seven Feet coal seams and these seams may well underlie the site at very shallow depth.

One major coal seam lies beneath the Gellideg coal seam according to the generalised vertical section. The Garw coal seam is stratigraphically 45m below the Gellideg and is the following sequential coal seam.

Ironstones are known to feature in the geological succession below the Garw coal seam, as indicated stratigraphically below on the vertical section as the Rosser Ironstone Veins. Ironstones will therefore be present, especially in consideration with the site history as the Garw ironstone pit. However, given the depth of both the Garw coal seam and the underlying ironstone horizons any future collapse will have no effect on surface stability beneath the site.

The stratigraphy of these seams, and their anticipated depth based on the vertical section, are presented in **Table 2.3**. The superficial depth/thickness is based on BGS boreholes in the local area, as indicated on the table.

Table 2.3 Detailed Stratigraphic Vertical Section Beneath the Site – Coal Seams and Ironstone

Coal Seam	Thickness (m)*	Estimated Depth (m)
Upper Seven-Feet	0.50m (1ft 6in)	Shallow Depth
Five-Feet	1.40m (4ft 6in)	Shallow Depth
Gellideg	1.21m – 1.52m (4ft to 5ft)*	Shallow - 30m
Garw	0.30m (1ft)*	75m (Estimated)
Rosser Ironstone Veins	-	>76m

No major faults are recorded within 100m of the site, according to the 1:10,000 geological map.

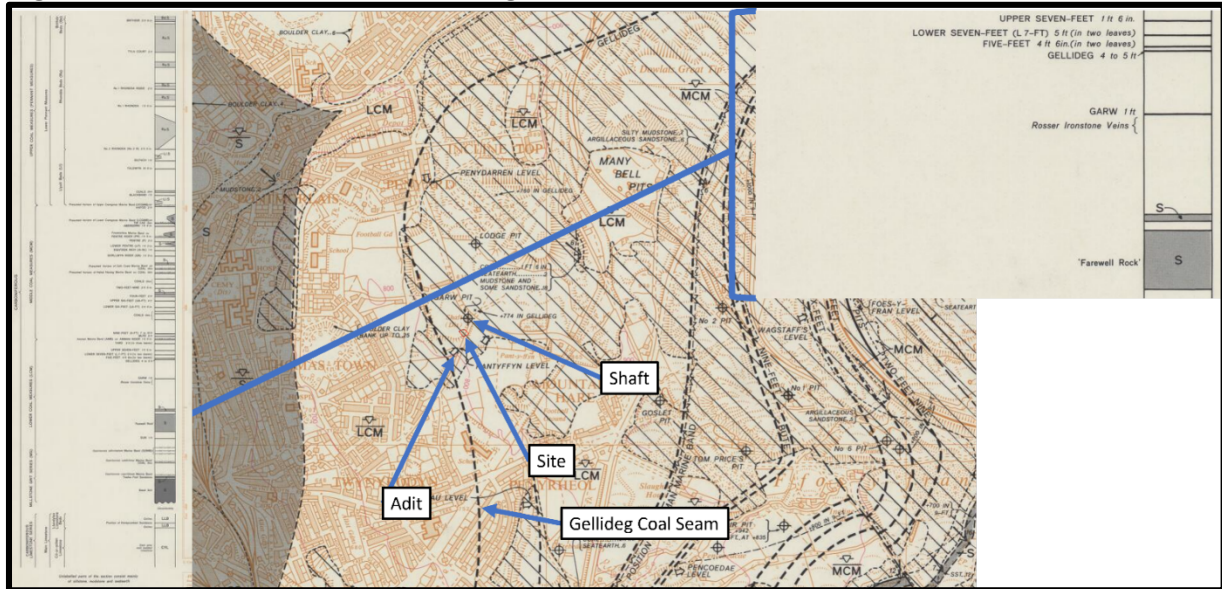
Three mine entries are recorded within 100m of the site.

Two mine adits associated with the Garw Pit are orientated to the northeast and appear to be targeting the Gellideg coal seam. The mine adits are recorded 20m and 50m to the southwest and east, respectively, with the closest mine adit to the site labelled as the Pantyffyn Level.

A mine shaft is recorded approximately 70m to the north/northeast and corresponds to the Historical Map data (Garw Ironstone Pit) location of the previously shaft. It is labelled as the 'Garw Pit' shaft on the 1:10,560 geological maps.

The 1:10,560 geological map illustrating the site location in relation to the Gellideg seam, the mine adits, and shaft is shown in **Figure 2.3**.

Figure 2.3 Extract of 1:10,560 Geological Map



2.3.2 BGS Borehole Information

Several BGS boreholes are recorded in the local area (mostly to the northwest and southwest). A selection of these are summarised below.

SO00NE203 (305690, 206300). Approximately 60m to the northwest.

TOPSOIL from ground level to 0.30m.

Brown silty gravelly bouldery CLAY from 0.30m to 3.20m.

Grey SANDSTONE from 3.20m to >3.50m.

No groundwater encountered.

SO00NE198 (305660, 206250). Approximately 84m to the west.

TOPSOIL from ground level to 0.20m.

Firm brown very sandy stoney CLAY with boulders from 0.20m to 3.30m

Stiff grey sandy stoney CLAY with boulders from 3.30m to 4.50m

Possible grey SANDSTONE from 4.50m.

Seepage at 3.3m rising to 0.3m.

SO00NE201 (305700, 206200). Approximately 87m to the northwest.

TOPSOIL from ground level to 0.20m.

Stiff brown silty sandy CLAY with boulders from 0.30m to 1.60m.

Stiff grey very sandy CLAY from 1.60m to 3.70m

Possible brown SANDSTONE from 3.70m to >4.00m.

Groundwater struck at 2.0m rising to 1.0m

SO00NE200 (305660, 206220). Approximately 110m to the southwest.

TOPSOIL from ground level to 0.20m.

Brown and grey sandy bouldery CLAY from 0.20m to 3.30m.
 Grey sandy gravelly bouldery CLAY from 3.30m to 6.80m.
 Grey SANDSTONE from 6.80m to >7.00m.

No groundwater encountered.

SO00NE202 (305670, 206180). Approximately 87m to the northwest.

TOPSOIL from ground level to 0.20m.
 Stiff brown and grey stoney CLAY with boulders from 0.20m to 2.80m.
 Possible grey SANDSTONE from 2.80m.

No groundwater encountered.

SO00NE198 (305660, 206250). Approximately 84m to the west.

TOPSOIL from ground level to 0.20m.
 Firm brown very sandy stoney CLAY with boulders from 0.20m to 3.30m
 Stiff grey sandy stoney CLAY with boulders from 3.30m to 4.50m
 Possible grey SANDSTONE from 4.50m.

Seepage at 3.3m rising to 0.3m.

SO00NE191 (305530, 206410). Approximately 230m to the northwest.

TOPSOIL from ground level to 0.30m.
 Greyish brown gravelly bouldery CLAY from 0.30m to 2.70m.
 Grey SANDSTONE from 2.70m to 3.00m.

No groundwater encountered.

SO00NE190 (305570, 206490). Approximately 250m to the northwest.

MADE GROUND (TOPSOIL) from ground level to 0.20m.
 MADE GROUND (ash, stone, household refuse) from 0.20m to 9.80m.
 Grey MUDSTONE from 9.80m to >10.10m.

No groundwater encountered.

2.3.3 Radon

The Envirocheck Report (**Annex A**) details that the property is in a lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level).

No radon protective measures are necessary in the construction of new dwellings or extensions.

2.3.4 Mining

The site situates in the South Wales coal fields.

Relevant BGS mineral sites as recorded in the Envirocheck Report datasheets (**Annex A**) are summaries in **Table 2.4**.

Table 2.4 BGS Recorded Mineral Sites

Site Name	Distance/ Direction from site	Type	Commodity
Pantyffyn Level	ON SITE	Underground	Coal - Deep
Garw Pit	54m to the north.	Underground	Coal - Deep
Pant-y-Ffyn Coal Level	61m to the east.	Underground	Coal - Deep

A Consultants Coal Mining Report was purchased from the Coal Authority and is appended in **Annex A**.

The report also states that no past mining is recorded beneath the site.

However, the Coal Authority states that there are probable unrecorded shallow workings at the site. There is also a spine roadway recorded beneath the site, according to the Coal Authority report. This roadway is likely to be from the adit that underpasses the west of the site.

The site is also in an area of unlicensed opencast, according to the Coal Authority report. Plans for the opencast mines in vicinity of the site demonstrate that workings from these mines did not extend onto the site, as illustrated by **Drawing 02** and **03**.

The closest workings to the site are in the Gellideg coal seam located 25m to the east. Given rockhead is likely to be far less than 25m below ground level, the risk to the site from the nearby opencast is considered negligible. The opencasts have been backfilled and are currently occupied by a mixture of housing and opencast. The mining commenced in June 1982 and was completed in December of the same year. The plans were issued in 1992. Historical maps around the same period show that finished ground levels were approximately the same after the mining and restoration took place, however the disused tips were removed. Sometime between 2006 and 2023 the opencast to the east became occupied by a large housing estate. The existing school to the west was built around the same time. The site has remained as vegetated and soft landscaping within the school grounds until present day.

The site is also recorded to have been within the boundary of the Garw Ironstone Pit based on the site history and therefore there is anticipated ironstone workings beneath the site.

Considering the Gellideg coal seam is of workable thicknesses, there may have been unrecorded workings within this seam beneath the site. This also holds for the Five Feet and Seven Feet coal seams. The Rosser Vein Ironstones, stratigraphically below the Garw coal seam, will have also been worked. However, both the Garw coal seam and Rosser Vein ironstones will be at such a depth that any future collapse should not affect the stability of the site.

The Coal Authority state that there is 1 No. outcrop of coal (Gellideg) within 100m of the site. The Consultant Report places it 23m west of the site. Given the location of the Gellideg coal seam and dip of strata the Gellideg coal seam is likely to be at shallow to 30m depth beneath the site. There are no outcrop locations shown for the Five Feet and Seven Feet coal seams by the site, however the outcrop of the Seven Feet coal seam is shown to the south of the site.

Three mine entries are recorded within 100m of the site, according to the report. These are summarised in **Table 2.5**

Table 2.5 Mine Entries Within Site Proximity

Entry Type	Coal Authority Reference	Grid Reference	Treatment Description	Mineral
Shaft	305206-004	305785, 206353	This shaft has been capped and was filled in November 1982. It was further enclosed by a 7ft chain link fence with barbed wire and double access gates	Coal
Adit	305206-005	305834, 206294	No treatment given, as per Coal Authority records.	Coal
Adit	305206-014	305748, 206256	No treatment given, as per Coal Authority records.	Coal

The Coal Authority Interactive Map (**Figure 2.4**) shows a seam to outcrop approximately 100m to the west. The Coal Authority reference for the seam is SW013I, which relates to the Gellideg coal seam and coincides with that of the geological map.

Further to this, an inspection of the Coal Authority's Interactive Map shows the three previously identified mine entries (2 No. adits and 1 No. shaft) within 100m of the site.

The Coal Authority Interactive Map Viewer places the site within a development high risk area.

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining at the site.

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994. There is no current Stop Notice delaying the start of remedial works or repairs to the property. The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

There have also been no recorded mine gas incidences within 500m of the site, according to the Coal Authority.

The anticipated colliery spoil can contain potentially pyritic mudstones; geologies of this nature are potentially aggressive to buried concrete.

An extract of the Coal Authority Interactive Map is shown in **Figure 2.4**

This is further assessed in **Section 3.0** and also in the intrusive risk assessment in **Section 8.0**.

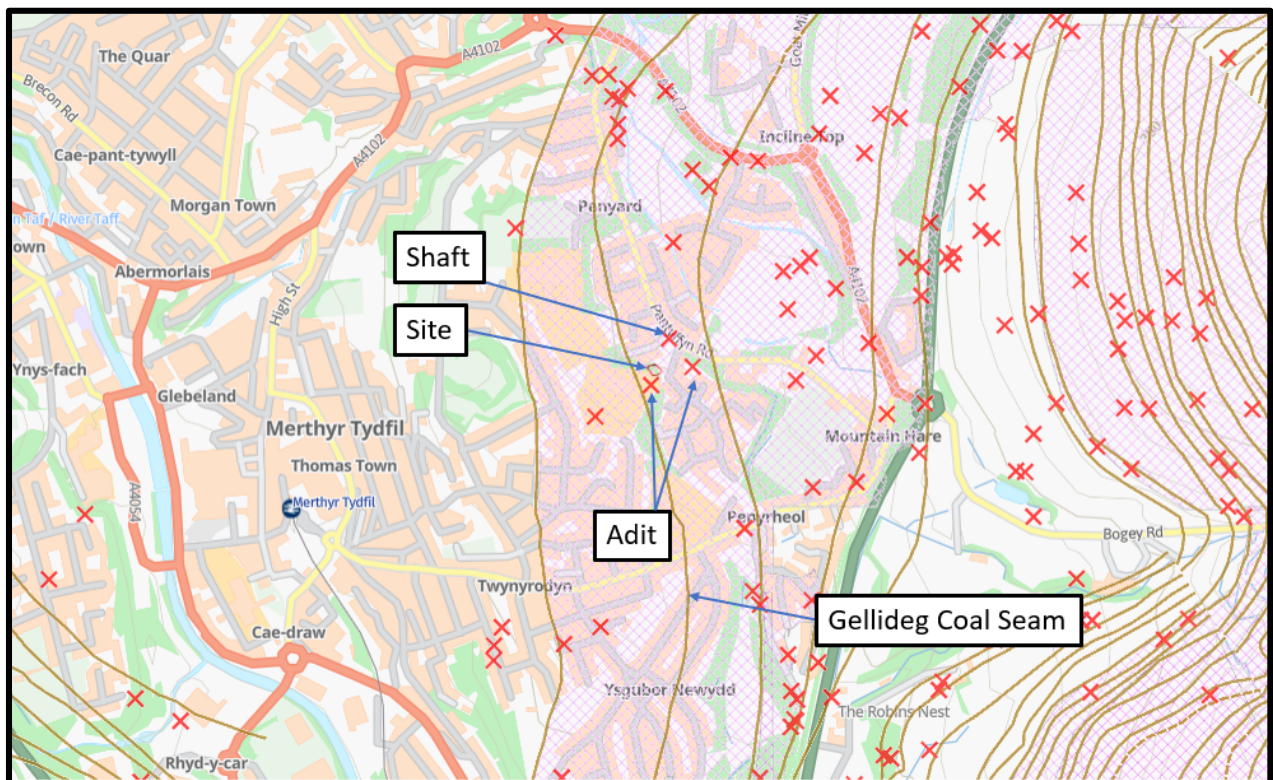


Figure 2.4 Extract from Coal Authority Interactive Map

2.3.5 Natural Hazards

Collapsible Ground: Very Low

Compressible Ground:	Very Low
Ground Dissolution:	No Hazard
Landslide:	Very Low
Running Sand:	Very Low
Shrinking and Swelling Clays:	Very Low

2.4 Environmental Setting

The following sections have been compiled using the Landmark Information Group Envirocheck datasheet and maps which can be found in **Annex A**.

2.4.1 Hydrogeology

Superficial deposits beneath the site have an aquifer designation of Secondary Aquifer-Undifferentiated.

The bedrock deposits beneath the site have an aquifer designation of Secondary Aquifer-A.

Deeper groundwater flow within the underlying bedrock will be controlled by the strata dip and any fractures or bedding planes within the rock units.

The hydraulic gradient will be at its steepest during periods of heavy rainfall and aquifer recharge.

The site does not locate within a groundwater source protection zone.

The nearest groundwater abstraction point is located 1062m to the west, operated by P Forker Contractors Limited for general industrial use.

2.4.2 Hydrology

The nearest surface water feature locates 154m to the northeast, comprising of an unnamed inland river.

The topography of the site slopes down towards to the south/southwest. Surface water is likely to drain in this direction.

2.4.3 Flooding

The site is not at risk from extreme flooding from rivers or sea.

The site is also not at risk of flooding from surface water.

There is limited potential for groundwater flooding to occur on the site.

2.4.4 Waste

There are no recorded landfill sites within 250m of the site.

There are no licensed waste management facilities or waste transfer sites within 250m of the site.

There are no discharge consents within 250m of the site.

2.4.5 Pollution

No pollution incidents are recorded to have occurred within 250m radius of the site.

2.4.6 Sensitive Land Use

The site is not located within a sensitive land use area.

2.4.7 Measured Urban Soil Chemistry

The BGS have published measured urban soil chemistry concentrations locally to the site for a number of common contaminants, i.e. arsenic, cadmium, chromium, lead and nickel. All of the given determinants have anticipated concentrations that are below the recognised trigger levels for a residential with plant uptake scenario.

2.4.8 Industrial Land Use

Relevant contemporary trade directory entries recorded within proximity of the site are summarised in **Table 2.6**.

Table 2.6 Relevant Contemporary Trade Summary

Company	Distance/Direction from site	Classification	Status
J C Plant Services	219m to the north.	Plant and Machinery Repairs	Inactive

2.4.9 Infilled Land

Potentially infilled land features within 250m of the site are summarised in **Table 2.7**.

Table 2.7 Potentially Infilled Land

Feature	Distance/Direction from site
Potentially Infilled Land (Non-Water) – Unknown Filled Ground (Pit, quarry, etc) – Garw Ironstone Pit and colliery spoil – fill will mainly comprise mining spoil including soil and bedrock, which are not biodegradable.	On site and extending northwards

SECTION 3 Preliminary Coal Mining Risk Assessment

3.1 Geotechnical Risk

3.1.1 Underground Mining

Based upon geological map data, the stratigraphical sequence within 75m of the ground surface of the site is illustrated in **Figure 3.1**.

Holocene	MADE GROUND (likely comprising colliery and ironstone spoil)	0.00m to 3.00m
	Residual Soils	3.00m to 7.00m
South Wales Lower Coal Measures	Coal Bearing Mudstone/Sandstone with Seatearth and minor Siltstone	7.00m to 20.00m
	Upper Seven-Foot Coal Seam	20.00m to 20.50m
	Coal Bearing Mudstone/Siltstone with Seatearth and minor Sandstone	20.50m to 27.00m
	Five-Foot Coal Seam	27.00m to 28.50m
	Coal Bearing Mudstone/Siltstone with Seatearth and minor Sandstone	28.50m to 30.00m
	Gellideg Coal Seam	30.00m to 31.50m
	Coal Bearing Mudstone/Siltstone with Seatearth and minor Sandstone	31.50m to 75m
	Rosser Ironstone Veins / Coal Bearing Mudstone/Siltstone	75m to 75.50m

Figure 3.1 Geology and Strata Base below Ground Level

The geological maps indicate that the Gellideg and Garw coal seams underlie the site, and the Coal Authority report confirms that there is a spine roadway beneath the site. The report states that there are probable shallow unrecorded workings beneath the site.

The shallow workings referred to may well be within the Gellideg coal seam, However, unrecorded workings in both the Seven Feet and Five Feet coal seams cannot be ruled out.

From the anticipated depth to rockhead given by BGS data, there is likely to be approximately 30m of rockhead above the Gellideg, and 23-27m of rockhead above the Garw.

As previously stated, given the depth to the Garw coal seam and associated ironstone horizons there will be an insignificant risk to the surface stability of the site from any future collapse of workings within the above seams and ironstone horizons.

In conclusion there is a high risk of past shallow workings in the Gellideg coal seam

The intrusive site investigation conclusions on the risk to the development from unrecorded shallow workings are discussed in **Section 7.0**.

3.1.2 Shafts & Adits

Two mine adits, advancing towards the northwest, are recorded 20m and 50m to the southwest and east respectively. The mine adit 20m to the southwest is recorded advancing from entry to the northwest and likely adjoins onto the confirmed spine roadway by the Coal Authority report. No details regarding treatment are available.

The mine adit recorded 50m to the east is unlikely to be within influencing distance and the orientation of the adit is away from the site. There are also no details regarding treatment of this mine adit.

The mine adits are also recorded on the geological and Coal Authority Interactive Map. The likelihood that the mine adits exists, and that the orientations are accurate, is high.

Depth to rockhead is expected to be within 3-7m from BGS borehole data. Consequently, the potential zone of collapse either from the mouth of the adit or the roadway is likely to extend 3-7m from the top of rockhead.

The foundations of any buildings or structures, and any services or access roads should be located outside a mine entry's zone of influence, as illustrated in **Figure 3.2** below.

Where the roadway is present beneath the site and within influencing depth, it should be remediated by drilling and grouting to prevent future collapse.

A mine shaft is also recorded 75m to the north/northwest of the site. The shaft is recorded on geological maps, Coal Authority Interactive Maps, and the historical maps. The likelihood that the shaft exists is also therefore high. However, the site should be located outside the shafts zone of influence, in conjunction with the information that the shaft has been capped and filled in November 1982.

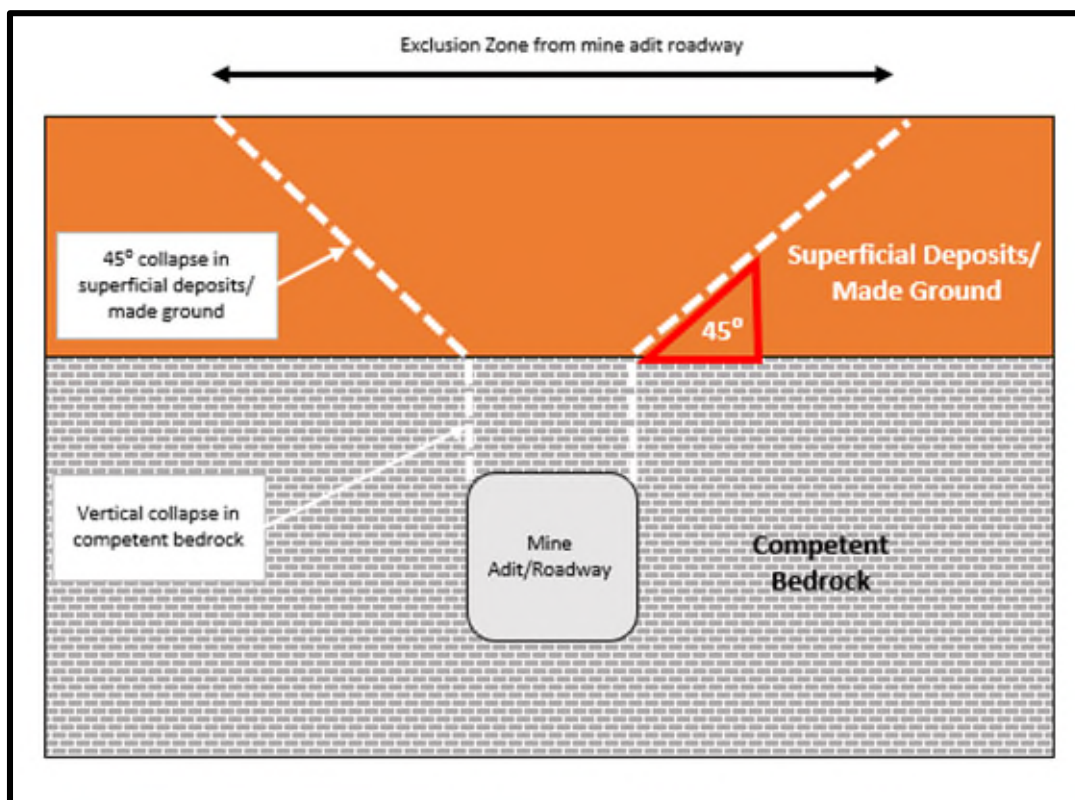


Figure 3.2 Exclusion Zone from Adit/Roadway

3.1.3 Mine Gas Risk Assessment

In regard to mine gas, this assessment has been completed in accordance with guidance published in CL:AIRE, 2021, Good practice for risk assessment for coal mine gas emissions. In the first instance, the risk assessment process requires the screening out of 'potentially at risk sites' utilising the decision support tool for mine gas risk assessment, provided in **Figure 13.1 - CLAIRE 2021**.

A summary of the decision tool and site outcome is presented in **Table 3.1**.

Table 3.1 Decision Support Tool Summary – Site Specific

Step	Qualifier Question	Outcome	Comment
1	Is the site within a Coal Authority defined Coal Mining Reporting Area?	Yes	Go to step 2
2	Are all these statements true? Mine entries >50m from site boundary Workings >150m depth No faults or other potential pathways connecting surface to deeper unflooded workings Outside area of past or probable shallow workings on Coal Authority Viewer	No	Go to step 3
3	Are all of these statements true? Workings between 30m and 150m but permanently flooded or covered by 10m+ of low permeability superficial deposits?	No	Go to step 4

	Mine entries >50m from site boundary (Low permeability deposits of sufficient thickness – less than 1×10^{-6} m/s hydraulic conductivity)		
4	Are any of these statements true? Mine entries on site or <20m from site boundary Workings beneath site <30m and unflooded or variable water level (not permanently flooded) Faults or other pathways connecting surface to deeper unflooded workings. Within area of past or probably shallow workings on Coal Authority Viewer	Yes	High Risk Zone*

It is conjectured based upon the desk study information that the site is at high risk of mine gas. This will be confirmed or otherwise based upon the findings of the intrusive investigation and detailed mine gas risk assessment.

Due to the presence of the mine adit located 20m to the southwest, the potential shallow workings, and presence of other nearby mine entries, it is considered that the risk to the site from mine gas is high.

3.1.4 Mine Workings & Mine Gas Preliminary Conclusion

Due to the information above, it was recommended that an exploratory investigation was carried out to confirm whether there is sufficient rockhead to prevent the formation of crown holes at the surface from probable workings beneath the site for the Gellideg coal seam.

It was also recommended that a mine gas risk assessment was undertaken prior to site being developed to determine whether suitable mitigation measures should be incorporated into the development.

The results of this investigation are discussed in **Section 8.0**.

SECTION 4 Preliminary Human Health and Environmental Risk Assessment

4.1 General

The preliminary human health and environmental risk assessment is a qualitative evaluation of unacceptable risks to human health or the environment from potential 'contaminated land', based on reviewed information in preceding sections of this report.

For 'contaminated land' to exist as defined in Part 2A of the Environmental Protection Act (EPA) 1990, a Pollutant Linkage needs to be identified. Pollutant linkages are defined by having a valid 'source – pathway – receptor' as established in the preliminary conceptual site model.

For our definitions of pollution linkage and how we define risk please refer to **Annex B** which includes our classifications of consequence and probability, and risk assessment matrix.

4.2 Potential Sources of Contamination

Potential or known sources of contamination associated the sites current and historical land use are summarised in **Table 4.1**.

Table 4.1 Contamination Sources

ID	Source	Contaminant
S1	Natural and Possible Made Ground (likely comprising colliery waste) Soils – Historic and Current	Metals, Metalloids, PAH, TPH, Asbestos, Loss on Ignition & Calorific Value
S2	Garw Ironstone Pit & Shallow Mine Workings/Spine roadway (Historic)	Metals, Metalloids, TPH, PAH, Asbestos, CO ₂ , CH ₄ , CO, H ₂ S
S3	Potentially Infilled Land (Reservoirs) Within 250m (Historic)	CO ₂ , CH ₄ , CO, H ₂ S

No other significant potential on-site or off-site sources of contamination have been identified during the desk study.

4.3 Potential Pollution Pathways

Potential contaminant pathways associated with a residential with home grown produce land use are as follows.

- P1 – Direct soil and dust ingestion
- P2 – Consumption of school grown produce
- P3 – Dermal contact
- P4 – Inhalation of dust and vapours
- P5 – Vertical migration of leachates (unsaturated zone)
- P6 – Horizontal and vertical migration of contaminants (saturated zone)
- P7 – Artificial contaminant pathway (borehole, pile, excavation etc)
- P8 – Surface run-off
- P9 – Plant uptake
- P10 – Horizontal and vertical migration of ground gasses and vapours
- P11 – Direct contact with construction materials
- P12 – Inhalation of asbestos fibres

4.4 Potential Receptors

There are human and hydrological receptors to any contamination that may be present on site. Potential receptors include.

- R1 – Construction and maintenance workers
- R2 – Future site users (visitors/pupils)
- R3 – Passers-by or neighbouring site users
- R4 – Groundwater (aquifer)
- R5 – Surface waters (river/lake)
- R6 – Area of public open space
- R7 – Construction materials (concrete/potable water pipes)

4.5 Preliminary Conceptual Site Model

The preliminary conceptual site model establishes potential pollutant linkages between contaminants (source), pathways and receptors, realised during the preparation of the desk study report. Where a potential pollutant linkage is identified an assessment of risk is subsequently undertaken. The preliminary conceptual site model is tabulated in **Table 4.2**.

Outcomes of the preliminary conceptual site model are used as a basis for the design and implementation of the site investigation, whereby areas of potential contamination can be targeted as well as investigating the wider site.

Findings of the site investigation can in turn be used to develop and refine the conceptual site model.

Table 4.2 Preliminary Conceptual Site Model

Source	Pathway	Receptor	Preliminary Risk Assessment		
			Consequence	Probability	Risk
Human Health					
Contaminated Soils S1	Direct soil and dust ingestion P1 Dermal contact P3 Inhalation of dust and vapours P4	Construction and maintenance workers R1	Medium	Likely	Medium Risk - COSHH assessment and good level of PPE/ hygiene by site workers/ staff; dust suppression measures if required. Suitably designed site investigation recommended
		Passers-by or neighbouring site users R3	Medium	Low Likelihood	Low Risk - Dust suppression measures if required.
		Future site users (visitors/pupils) R2	Medium	Likely	Medium Risk - Suitably designed site investigation recommended
Impacted Groundwaters S1	Horizontal and vertical migration of contaminants (saturated zone) P6 Dermal contact P3	Construction and maintenance workers R1	Medium	Likely	Medium Risk: Significant sources of mobile contamination or leachable contamination have been identified and impacted groundwaters may therefore be anticipated.
Mine Gas S2	Horizontal and vertical migration of ground gasses and vapours P10	Construction and maintenance workers R1	Severe	Likely	High Risk: Significant sources of mine gas have been identified (possible shallow workings, spine roadway, adit off of site) and may migrate onto site. Suitably designed site investigation comprising of gas well installations recommended.
Ground (Infilled Land) Gas S3		Future site users (visitors/pupils) R2		Low Likelihood	Low Risk: Sources of ground (infilled land) gas has been identified within 250m of the site. Suitably designed site investigation comprising of gas well installations recommended.
Contaminated Soils S1	Plant uptake P9 Consumption of school grown produce P2	Future site users (visitors/pupils) R2	Medium	Likely	Medium Risk - Suitably designed site investigation recommended
Contaminated Soils S1	Direct Contact P11	Construction materials (water pipes) R7	Mild	Low Likelihood	Low Risk: An appropriate water supply pipe material should be chosen after the potable water supplier has completed an assessment in accordance with UK Water Industry Research guidance; Guidance for the Selection of Water Supply Pipes to be

					used in Brownfield Sites, UKWIR Report Ref: 10/WM/03/21.
Aggressive ground conditions - Sulphates S1		Construction materials (concrete) R7	Mild	High Likelihood	Medium Risk: It is anticipated that colliery spoil will be encountered on site. Chemical analysis of the soils should be undertaken, and the appropriate classification of concrete should be specified as per BRE Special Digest 1: Concrete in Aggressive Ground.
Aquatic Environment					
Contaminated Soils S1 & S2	Vertical migration of leachates (unsaturated zone) P5	Groundwater (aquifer) R4 Surface waters (river/lake) R5	Medium	Low Likelihood	Low Risk: Significant contamination is not expected across the site. Soils are anticipated to be impermeable clay material beneath potential made ground colliery spoil. This is to be confirmed, or otherwise, during the suitably designed site investigation
	Surface run-off P8				
	Horizontal and vertical migration of contaminants (saturated zone) P6	Surface waters (river/lake) R5			

SECTION 5 Field Investigation

5.1 Site Works

A geotechnical and geoenvironmental site investigation comprising 4 No. rotary open boreholes, 3 No. windowless sample boreholes with gas installations, and 1 No. trial pit / soakaway infiltration test was undertaken from the 12th to the 16th of February 2024.

The fieldwork was supervised by TFW Group Ltd, who logged the exploratory holes to the requirements of BS 5930:2015+A1:2020. The proposed locations of the exploratory holes were determined by TFW Group Ltd in general accordance with BS 10175:2011+A2:2017 in order to assess the findings of the preliminary conceptual site model.

The ground levels and coordinates at each exploratory hole were established by TFW Group Ltd using GPS techniques.

Trial pit referenced TP01 was formed using a 6-tonne excavator with a 0.60m wide bucket.

A representative disturbed sample was taken and retained in an airtight container for environmental testing.

On completion, trial pit TP01 was backfilled with materials arisings compacted in layers using the excavator bucket. The ground surface was left proud to accommodate future settlement of backfilled materials.

The trial pit log is presented in **Annex C**.

A soakaway test was carried out in trial pit TP01 in general accordance with BRE DG 365:2016. The excavation sides were squared using the excavator bucket and dimensions recorded within the test section. The trial pit was partially filled with clean water using a dedicated bowser with a 75mm diameter outlet and the fall in level recorded against time. The results are presented in **Annex D**.

The boreholes referenced WS01 to WS03, were formed using a Terrier 2000 rig. Dynamic sampling techniques were employed from surface to produce a continuous disturbed sample.

Standard penetration tests (SPT) were carried out at regular intervals in general accordance with BS1377: Part 9:1990:3.3. SPT results summarised as N values are presented on the borehole log.

Boreholes were monitored for groundwater ingress as drilling proceeded.

Representative disturbed samples were taken and retained in airtight containers for environmental and geotechnical testing.

On completion, WS01 to WS03 were installed with slotted standpipes consisting of a 50mm ID HDPE slotted tube set in a granular filter zone and sealed above with a bentonite plug. Installations were protected at surface with a flat cover. Full installation details are recorded on the relevant logs.

The borehole logs are presented in **Annex E**.

Boreholes reference BH01 to BH04 were formed using a track mounted rotary drilling rig. Open hole drilling techniques were employed from surface to termination depth (40.00m) to investigate the recorded spine roadway and any potential shallow mine workings. Water flush was used in the drilling of the boreholes.

Boreholes were monitored for groundwater ingress as drilling proceeded.

On completion BH01 to BH04 were backfilled with bentonite pellets.

The borehole logs are presented in **Annex F**.

Exploratory hole locations are shown on **Drawing 01**.

5.2 Ground Conditions

The ground conditions encountered by the exploratory holes can in general be summarised as shown in **Table 5.1**.

Table 5.1 Summary of Typical Ground Conditions

Depth (m)			Thickness (m)	Stratum
0.00	-	0.70/1.20	0.70/1.20	MADE GROUND: Soft to firm light brown mottled black and orangish brown variably sandy variably gravelly CLAY .
0.7/1.2	-	1.0/3.0	0.30/1.60	MADE GROUND: Firm black slightly sandy variably gravelly CLAY of colliery spoil.
1.0/2.8	-	6.0/7.4	3.00/5.40	Firm to stiff* dark brown/light bluish grey variably gravelly variably sandy CLAY .
6.0/7.4	-	21.2/30.2	1.40/3.70	Interbedded grey MUDSTONE & SANDSTONE (Rotary Open Hole - Drillers Description) Soft drill/backfilled workings encountered between 8.0/9.7 – 10.8 -12.7 And 21.2-22.5 (BH03 only)
21.20/30.20	-	22.50/31.80	1.30/3.00	Possible BACKFILLED WORKINGS / BROKEN GROUND/ COAL SEAM (Rotary Open Hole - Drillers Description)
30.30/31.80	-	>40.00	Unconfirmed	Interbedded grey MUDSTONE & SANDSTONE (Rotary Open Hole - Drillers Description)

**Strength indication in windowless sample boreholes and trial pit ONLY, and to a maximum of 3.00m depth*

5.2.1 Miscellaneous Ground Conditions

Due to the loss of flush encountered in the soft drill/backfilled workings, 'reading' of the boreholes became difficult with rate of penetration used to help interpretation.

5.3 Groundwater

Groundwater information recorded during the site investigation is summarised in **Table 5.2**.

Table 5.2 Groundwater Summary

Location	Depth (m)	Details
BH01	2.30	Medium groundwater inflow.
BH02	2.50	Medium groundwater inflow.
BH03	1.70	Medium groundwater inflow.
BH04	2.40	Medium groundwater inflow.
WS01	2.00	Medium groundwater inflow.
WS02	2.10	Medium groundwater inflow.
WS03	2.90	Medium groundwater inflow.

5.4 Stability and Obstructions

Trial pits remained stable and vertical during excavation.

Windowless sample and rotary open boreholes were stable and vertical during drilling.

5.5 Installation Well Construction

Gas well locations were selected on a non-targeted basis to characterise the gas contamination status of the site from identified potential sources of mine and ground gas (mine adit/workings and infilled land respectively).

Gas installation well construction details are summarised in **Table 5.3**.

Table 5.3 Installation Well Summary

Location	Response Zone		Stratum
	From (m)	To (m)	
WS01	0.50	3.00	Made ground & natural soils
WS02			
WS03			

5.6 Laboratory Chemical Testing

5.6.1 Sampling Strategy

Soil sampling locations were selected on a non-targeted basis to characterise the contamination status of the site,

Sample locations, depths and suspected/known contamination source targets are summarised in **Table 5.4**:

Table 5.4 Sample Locations, Depths and Targets

Location	Depth (m)	Contamination Targets
TP01	0.50	S1 (MADE GROUND: Sandy gravelly CLAY) & S2
WS01	0.20	S1 (MADE GROUND: Sandy gravelly CLAY) & S2
WS01	0.60	S1 (MADE GROUND: Sandy gravelly CLAY) & S2
WS01*	1.00*	S1 (MADE GROUND: COLLIERY SPOIL)*
WS02	0.10	S1 (MADE GROUND: Sandy gravelly CLAY) & S2
WS02	0.60	S1 (MADE GROUND: Sandy gravelly CLAY) & S2
WS03	0.40	S1 (MADE GROUND: Sandy gravelly CLAY) & S2
WS03*	2.00*	S1 (MADE GROUND: COLLIERY SPOIL)*
* Loss on Ignition & Calorific Value testing ONLY.		

5.6.2 Soil Laboratory Analysis

During the site investigation works soil samples were taken and despatched to the accredited laboratories of Eurofins Chemtest for laboratory chemical testing. Soil samples were tested for the determinants listed in **Table 5.5**.

Table 5.5 Soil Laboratory Analysis

Metals & Metalloids	In-Organics	Organics	Others
Arsenic	Cyanide	Phenols	pH (acidity)
Cadmium	Sulphate	PAH	Asbestos
Chromium III		Petroleum Hydrocarbons	Calorific Value
Chromium VI			Loss on Ignition

Copper			
Lead			
Mercury			
Nickel			
Selenium			
Zinc			

The results are discussed in detail in **SECTION 6** and the laboratory test results certificates may be found in **Annex G**.

5.7 Soil Property Testing

5.7.1 In-situ Permeability Testing

During the site investigation one trial pit soakaway test was undertaken in TP01 and carried out in general accordance with BRE DG 365:2016.

Soakaway test results are summarised in **Table 5.6**.

Table 5.6 Summary of Soakaway Results

Trial Pit	Depth Range of Test (m)	Infiltration Rate (ms ⁻¹)
TP01 Test 1 of 1	1.00 – 1.50	Insufficient Infiltration Recorded

The test results are discussed in **SECTION 11.6** and the calculation sheets may be found in **Annex D**.

5.7.2 Laboratory Geotechnical Testing

A schedule of laboratory tests was prepared by TFW Group Ltd and samples were despatched to the accredited laboratories of Apex Testing Solutions. A summary of the testing carried out is presented in **Table 5.7**.

Table 5.7 Summary of Geotechnical Testing

Geotechnical Test	Standard (BS1377:1990)	No. Tested
Moisture Content	Part 2, Clause 3.2	2
4 Point Liquid and Plastic Limit	Part 2, Clause 4.3 & 5.3	

The test results are presented in **Annex H** and discussed in **SECTION 7** of this report.

5.7.3 Colliery Spoil Combustion Testing

Two samples were subject to Calorific Value analysis. The moisture content was also recorded. A summary of the testing carried out is presented in **Table 5.8**.

Table 5.8 Summary of Soil Combustibility Testing

Location	Depth (m)	Calorific Value (MJ/kg)	Loss on Ignition (%)	Moisture Content (%)
WS01	1.00	11	20	10
WS03	2.00	2.9	22	19

Combustible soils can lead to underground fires, which can give rise to the presence of toxic or corrosive substances, the generation of toxic, asphyxiant or flammable gases, instability of poorly compacted fill, and heat damage to buried structures and site services.

The following criteria are generally adopted and are taken from 'The Reclamation of Former Coal Mines and Steelworks' I.G. Richards *et al* 1993:

- < 2 MJ/kg Unlikely to be combustible,
- > 7 MJ/kg at risk from smouldering
- >11 MJ/kg at risk of being combustible (WS01 – 11 MJ/Kg)

The colliery spoil encountered on site can therefore be considered as at risk to spontaneously combust. Mitigation measures to prevent the risk of combustion should be outlined in a remediation strategy report.

SECTION 6 Evaluation of Geoenvironmental Analytical Results

6.1 Assessment Methodology

Comparison of the analytical results has been made with the 2015 Suitable 4 Use Levels (S4UL) provided by Land Quality Management (LQM) Limited and the Chartered Institute of Environmental Health (CIEH) or provisional Category 4 Screening Levels (pC4SL).

Sulphate results have been compared to guidelines presented in British Research Establishment (BRE SD1:2015). Sulphate levels need only be considered for buried concrete risk assessment and are not human health related.

6.2 Soil Test Results

A summary of the chemical test results which include the regulatory soil guideline values used in a residential setting are given in the following tables. The complete results can be found in **Annex G**.

6.2.1 Inorganics & Miscellaneous

Six samples were tested for a standard suite of inorganics, pH and organic matter. The summarised results are in **Table 6.1**.

Table 6.1 Summary of Soil Chemical Test Results – Inorganics & Miscellaneous

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Arsenic	37	LQM/CIEH	2.8	9.8	0
Cadmium	11	LQM/CIEH	<0.10	1.7	0
Chromium III	910	LQM/CIEH	5.5	16	0
Chromium VI	6	LQM/CIEH	<0.5	<0.5	0
Copper	2400	LQM/CIEH	17	32	0
Lead	200	pC4SL	18	93	0
Mercury (inorganic)	40	LQM/CIEH	<0.05	0.07	0
Nickel	180	LQM/CIEH	13	17	0
Selenium	250	LQM/CIEH	0.31	0.82	0
Zinc	3700	LQM/CIEH	35	180	0
Cyanide	-	-	<0.5	<0.5	-
Boron	290	LQM/CIEH	<0.40	0.65	0
Sulphate Acid Soluble (%)	0.24	BRE	<0.010	0.077	0
Organic Matter (%)	-	-	3.2	5.7	-
pH	-	-	7.5	8.6	-
Notes: - No available guideline					

6.2.2 Organics

Six samples were tested for speciated polycyclic aromatic hydrocarbons. The summarised results are in **Table 6.2**.

Table 6.2 Summary of Soil Chemical Test Results – Speciated Polycyclic Aromatic Hydrocarbons

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Naphthalene	2.3	LQM/CIEH	<0.1	<0.1	0
Acenaphthylene	170	LQM/CIEH	<0.1	<0.1	0
Acenaphthene	210	LQM/CIEH	<0.1	<0.1	0
Fluorene	170	LQM/CIEH	<0.1	<0.1	0
Phenanthrene	95	LQM/CIEH	<0.1	0.33	0
Anthracene	2400	LQM/CIEH	<0.1	<0.1	0
Fluoranthene	280	LQM/CIEH	<0.1	0.56	0
Pyrene	620	LQM/CIEH	<0.1	0.52	0
Benzo(a)anthracene	7.2	LQM/CIEH	<0.1	0.33	0
Chrysene	15	LQM/CIEH	<0.1	0.30	0
Benzo(b)fluoranthene	2.6	LQM/CIEH	<0.1	0.50	0
Benzo(k)fluoranthene	77	LQM/CIEH	<0.1	0.15	0
Benzo(a)pyrene	2.2	LQM/CIEH	<0.1	0.32	0
Indeno(123cd)pyrene	27	LQM/CIEH	<0.1	0.28	0
Dibenzo(ah)anthracene	0.24	LQM/CIEH	<0.1	<0.1	0
Benzo(ghi)perylene	320	LQM/CIEH	<0.1	0.29	0
Total PAH	-	-	<2.0	3.6	-

Notes:

Thresholds based on 1.0% soil organic matter

- No available guidelines

Six samples were tested for petroleum hydrocarbon. The summarised results are shown in **Table 6.3**.

Table 6.3 Summary of Soil Chemical Test Results – Petroleum Hydrocarbons

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Aliphatic					
VPH C5 – C6 Ali	42	LQM/CIEH	<0.05	0.17	0
VPH C6 – C7 Ali	100^	LQM/CIEH	<0.05	<0.05	0
VPH C7 -C8 Ali	100^	LQM/CIEH	<0.05	<0.05	0
VPH C8 – C10 Ali	27	LQM/CIEH	<0.05	0.29	0
EPH C10 – C12 Ali	130	LQM/CIEH	<2.0	<2.0	0
EPH C12 – C16 Ali	1100	LQM/CIEH	<1.0	1.4	0
EPH C16 – C21 Ali	65000*	LQM/CIEH	<2.0	<2.0	0
EPH C21 – C35 Ali	65000*	LQM/CIEH	<3.0	10	0
EPH C35 – C40 Ali	65000	LQM/CIEH	<10	<10	0
Aromatic					
VPH C5 – C7 Arom	70	LQM/CIEH	<0.05	<0.05	0
VPH C7 – C8 Arom	130	LQM/CIEH	<0.05	<0.05	0
VPH C8 – C10 Arom	34	LQM/CIEH	<0.05	<0.05	0
EPH C10 – C12 Arom	74	LQM/CIEH	<1.0	<1.0	0
EPH C12 – C16 Arom	140	LQM/CIEH	<1.0	<1.0	0
EPH C16 – C21 Arom	260	LQM/CIEH	<2.0	16	0
EPH C21 – C35 Arom	1100	LQM/CIEH	<2.0	68	0

EPH C35 – C40 Arom	1100	LQM/CIEH	<1.0	8.1	0
Notes: VPH – Volatile Petroleum Hydrocarbons EPH – Extractable Petroleum Hydrocarbons Ali – Aliphatic Arom – Aromatic Thresholds based on 1.0% soil organic matter ^ - Ali C6-7 and C7-C8 based on criteria for Ali EC >6-8 * – Ali C16-21 and C21-C35 based on criteria for Ali EC >16-35					

Six samples were tested for Phenols. The summarised results are in **Table 6.4**.

Table 6.4 Summary of Soil Chemical Test Results – Phenols, BTEX & MTBE

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Phenols	120	LQM/CIEH	<0.10	<0.10	0
Notes: - No available guideline					

6.2.3 Asbestos Testing

All soil samples were scheduled for asbestos screening. Asbestos was not detected.

SECTION 7 Geotechnical Testing Results

Geotechnical testing results are summarised in the following sections and presented in their entirety in **Annex H**.

7.1 Plasticity & Moisture Content Testing

During the investigation, two samples of the shallow clay material was taken and submitted for plasticity testing. The test results are summarised in **Table 7.1**.

Table 7.1 Plasticity & Moisture Content Test Results

Location	Depth (m)	Laboratory Principal Soil Type	Moisture Content (%)	Plasticity Index (%)	Passing 425µm Sieve (%)	Modified Plasticity Index (%) – Rounded	Volume Change Potential
WS01	1.50	CLAY	21.9	19	87	17	LOW
WS02	2.50	CLAY	19.6	22	81	18	LOW

In line with the NHBC (Chapter 4.2), the modified plasticity index for each sample was calculated. For design purposes the soils on site should be assumed to have a low volume change potential.

7.2 BRE SD1 Testing

Sulphate results have been compared to guidelines presented in British Research Establishment (BRE SD1:2015). Sulphate levels need only be considered for buried concrete risk assessment and are not human health related.

Three samples were subject to BRE SD1 testing for concrete classification. The results are summarised in **Table 7.2**. The design sulphide class for the soils is presented in **Table 7.3**

Table 7.2 BRE SD1 Testing Summary

Location	Depth (m)	2:1 Water/Soil Extract	Total Sulphur (%)	Total Potential Sulphate (%)	Acid Soluble Sulphates (%)	Oxidisable Sulphides (%)	pH
		SO ₄ (g/l)					
WS01	0.60	<0.010	0.099	0.297	0.047	0.250	8.2
WS02	0.10	<0.010	0.072	0.216	<0.010	0.206	8.2
WS03	0.40	0.019	0.21	0.63	0.077	0.553	8.6

Table 7.3 BRE SD1 Assessment (Table C2)

Location	Design Sulphate Class (Sulphate 2:1 Water Soluble)	Design Sulphate Class (Total Potential Sulphate)	ACEC Class (Sulphate 2:1 Water Soluble & Mobile Water & pH)	ACEC Class (Total Potential Sulphate, Mobile Water & pH)
WS01 0.60m	DS-1	DS-2	AC-1	AC-2
WS02 0.10m	DS-1	DS-1	AC-1	AC-1
WS03 0.40m	DS-1	DS-2	AC-1	AC-2

Therefore, the Design Sulphate Class for Location is determined as **DS-2** and the ACEC Class is **AC-2** for the site.

SECTION 8 Refined Coal Mining Risk Assessment

8.1 Geotechnical Risk

8.1.1 Underground Mining

Based upon the site investigation data, the stratigraphical sequence within 40m of the ground surface of the site is illustrated in **Figure 8.1**.

Holocene	MADE GROUND (Sandy gravelly CLAY & Colliery Spoil)	0.00m to 1.00/2.80m
	Residual Soils (Glacial Till)	1.00/2.80m to 6.00/7.40m
South Wales Lower Coal Measures	Interbedded grey MUDSTONE & SANDSTONE	6.00/7.40m to 8.80/9.70m
	Possible BACKFILLED WORKINGS / BROKEN GROUND	8.80/9.70m to 11.00/12.70m
	Interbedded grey MUDSTONE & SANDSTONE	11.00/12.70m to 21.20/30.20m
	Possible BACKFILLED WORKINGS / BROKEN GROUND	21.20/30.20m to 22.50/31.80m
	Interbedded grey MUDSTONE & SANDSTONE	22.50/31.80m to 30.00m
	Gellideg Coal Seam	30.00m to 31.50m
	Interbedded grey MUDSTONE & SANDSTONE	31.50m to 40.00m

Figure 8.1 Geology and Strata Base below Ground Level

The intrusive mining investigation encountered potentially backfilled workings / broken ground in every rotary open borehole at two, possibly three horizons. The workings are taken to be in stratigraphic order:

- Seven Feet Coal Seam
- Five Feet Coal Seam
- Gellideg Coal Seam

Given the potential thickness of the Gellideg coal seam (1.5m) working heights are likely to be of this order. The minimum rock head cover above this seam would therefore vary between 16.1m and 28.8m. It is generally accepted that in order to prevent voids migrating to the ground surface and forming crown holes there should be a 10:1 rockhead to void ratio i.e., 15m. This

criterion is therefore satisfied. Evidence of the collapse and migration process can be seen in the depth of collapsed workings. However, it has been stated by the Coal Authority that a spine roadway exists beneath the site. This is taken to be the adit that underpasses the west of the site. The height of such a roadway is likely to be in the order of 2.0m and should the roadway be an open void any future collapse will have insufficient rockhead cover to prevent the formation of crown holes.

The backfilled workings within the Seven Feet/Five Feet coal seams will have insufficient rock head cover to prevent any migration of open voids forming crown holes.

8.1.2 Conclusion

The overall risk to the surface stability from workings in the Gellideg coal seam are insignificant.

However, there is a potential risk to the surface stability of the site from the spine roadway located beneath the site. Further information on the location of the spine roadway should be obtained from the Coal Authority

There is also a risk to the surface stability of the site from workings within the Seven Feet/Five Feet coal seams.

It is therefore recommended that the workings within the Seven Feet/Five Feet coal seams should be drilled and grouted to prevent crown holes migrating to the ground surface.

Further information on the location of the spine roadway should be obtained from the Coal Authority and then also drilled and grouted.

External areas such as access roads, car parking areas and any underground services/drainage should be underlain by a structural geo-grid.

It is recommended that the remediation measures are agreed with the Coal Authority prior to taking place.

The extent of the area to be remediated should be confirmed following additional drilling, which should confirm the location of the spine roadway.

SECTION 9 Mine and Ground Gas Risk Assessment

9.1 Rationale for Monitoring and Response Zones

Ground gas wells were installed in the shallow soils to replicate the depth of shallow spread foundations to monitor ground gas sourced from the made ground beneath the site, and mine gas that may migrate from depth in coal mine workings at depth. The 3No. wells were triangulated and are deemed sufficient to provide coverage of the small development site.

9.2 Ground Gas Risk Characterisation

Three gas monitoring wells were installed in WS01 to WS03. Installation details are shown on the relevant log.

Six rounds of gas monitoring have been carried out to date. The installations were tested for carbon dioxide, methane, oxygen, carbon monoxide and hydrogen sulphide using a Gas Analyser GA2000/5000.

Recorded gas concentrations are summarised in **Table 9.1**.

Table 9.1 Measured Gas Concentration Summary

Gas	Minimum (% V/V)	Maximum (% V/V)
Methane	0.0	0.4
Carbon Dioxide	0.7	22.0
Oxygen	10.0	19.8

Methane levels peaked at 0.4% V/V. Carbon dioxide levels varied drastically between 0.7% and 22% V/V. Oxygen concentrations varied between 10% and 19.8% V/V.

The gas flow rate from the boreholes was also assessed, a maximum flow rate of 0.2l/hr was recorded.

Based on a flow rate of 0.2 l/hr and the highest recorded carbon dioxide concentration of 22%, a gas screening value of 0.044 l/hr is calculated, as follows:

$$(22/100) \times 0.2 = 0.044 \text{ l/hr}$$

The results to date are presented in **Annex I**.

When this monitoring result is compared with Table 8.5 of CIRIA report C665, the site is classified as 'Gas Characteristic Situation 1' (CS1) in line with recommendations provided in CIRIA C665. However, as the carbon dioxide concentration is much higher than 5%, an increase to CS2 should be considered.

The fluctuating ground gas monitoring results, which includes the peak carbon dioxide significantly dropping from 20% to 0.9% in WS01, dictates that further assessment of the results is required to gain a greater understanding of the reason for the elevated carbon dioxide concentrations.

Firstly, it should be noted that the wells were either almost completely flooded or partially flooded due to the likely shallow groundwater beneath the site. The elevated concentration of carbon dioxide coincided with an almost completely flooded well (WS01). Gas monitoring data from flooded wells is not reliable and can give an unreliable indicator of elevated gas risk where none is actually present. The peak methane and carbon dioxide concentrations recorded in WS02 and WS03 were 0.0% and 4.5%.

9.3 Determination of Gas Source

A ternary gas plot has been presented utilising the gas data to date, the results are shown along with indicative gas sources in **Figure 9.1**

The gas results are indicative of ambient air and/or microbial respiration of organic materials in soils or air/carbon dioxide mixing. The only result that locates slightly outside this zone is from the flooded well at WS01, which is unreliable.

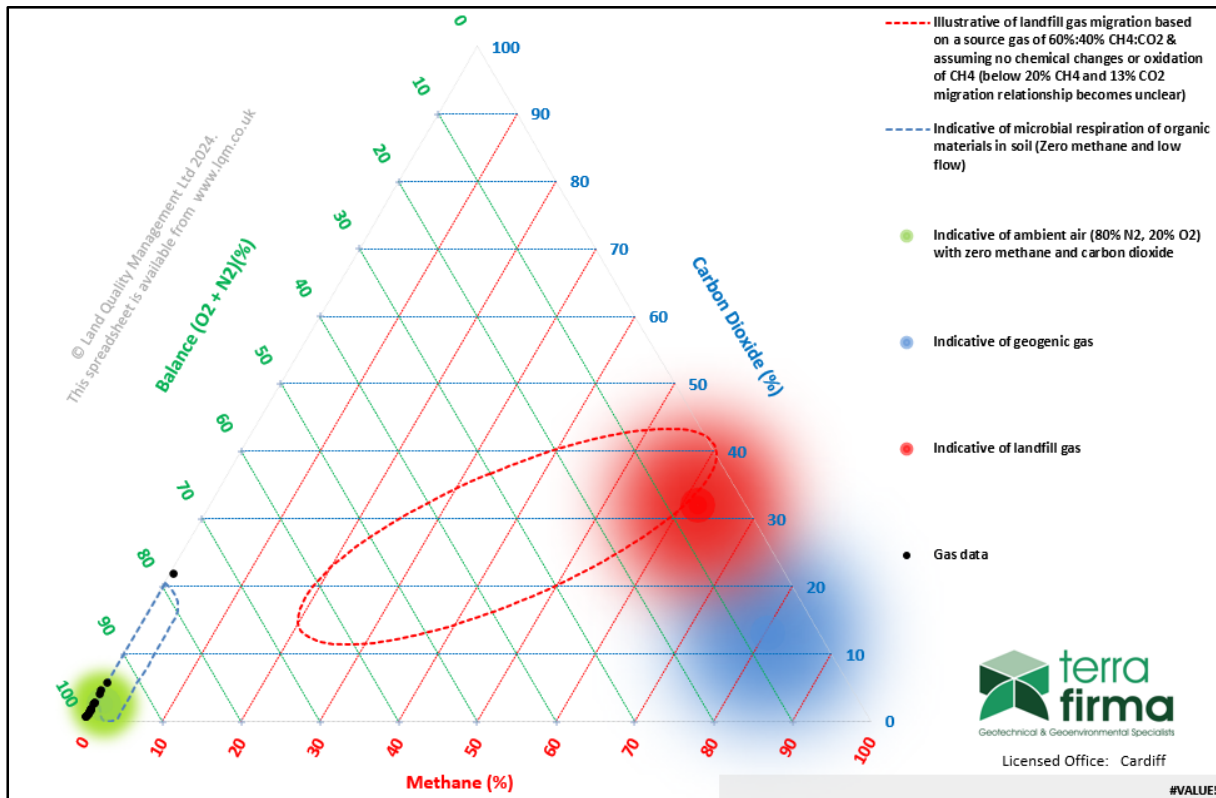


Figure 9.1 Methane, Carbon Dioxide, and Balance Gas Ternary Plot

The data has also been subject to stoichiometric assessment, as presented in **Figure 9.2**. The gas results here are indicative of a mixture of sources. The only result that lies outside this zone is from the almost completely flooded WS01, which is unreliable. This result suggests possible migration of carbon dioxide from depth or produced by oxidation of pyrite. The gas data is far more likely to be due to the oxidation of pyrite; particularly as colliery spoil is a source of pyrite, the BRE SD1 testing confirmed that pyrite is likely to be present, and that the ternary plot does not suggest a geogenic (mine) source.

Testing of the colliery spoil has identified a potential risk from combustion. Therefore, although it's only a small possibility, the elevated concentrations of carbon dioxide could be a result of smouldering colliery spoil. However, if remediation measures are put in place to remove the risk from combustion, the source can be dismissed for the proposed development.

If the groundwater recorded in all 7No. boreholes, and the flooded/partially flooded wells, corresponds with the groundwater table, the workings beneath the site will be completely, and permanently flooded. Flooded workings will not be a source of mine gas. It is therefore imperative to confirm that groundwater lies significantly above the workings. If it does, it can be demonstrated that the workings are permanently flooded, even with the future effects of climate change.

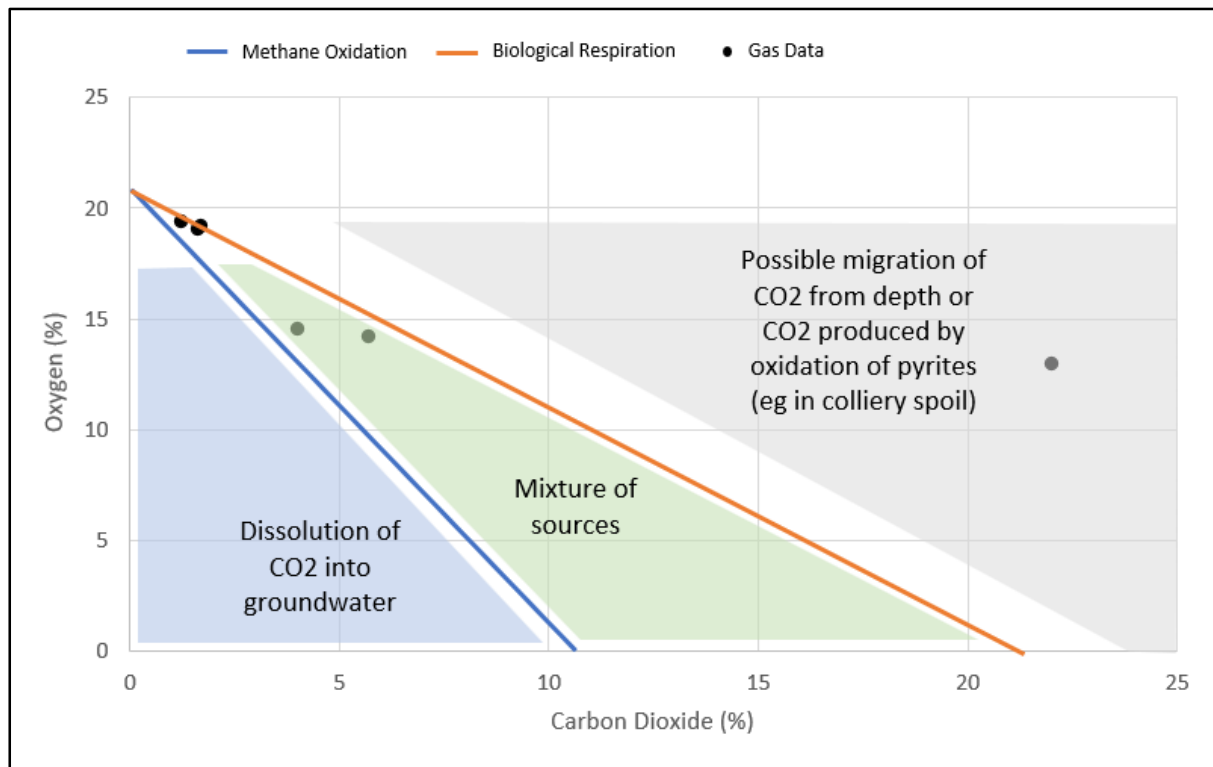


Figure 9.2 Stoichiometric Assessment of Carbon Dioxide and Oxygen

9.4 Gas Characteristic Situation Conclusion

Using the results from the partially flooded wells reduces the classification to Gas Characteristic Situation 1 (CS1) meaning no gas prevention measures are required for the proposed development with regards to the infilled land gas source. However, if suitable mitigation measures are not put in place to deal with the potential risk from combustible colliery spoil, the classification should be revisited and if necessary, changed.

Separate assessment of mine gas should be undertaken to confirm what measures, if any, are required to mitigate against the migration of mine gas into the proposed building. The assessment is carried out in the sections below.

9.5 Mine Gas Risk Assessment

Although there are no results to date to suggest that mine gas has been recorded by any of the monitoring wells, this does not confirm that there isn't a risk to the proposed development from mine gas. Mine gas emission is intermittent and is influenced by the driving forces mentioned previously. Mine gas can also be emitted following changes to the ground and environment such as grouting of mine workings, and changes to the groundwater regime. Both are realistically possible at this site.

9.5.1 Mine Gas Sources

Mine gas is produced by the oxidation of coal in unflooded underground workings. Backfilled workings were encountered but not open voids. Given the workings are backfilled the potential volume of mine gas is therefore reduced.

During the drilling water strikes were noted in every rotary borehole. The backfilled workings may be flooded which could reduce the risk of mine gas. It should be noted however that water was used as flush medium and so it is questionable how accurate the recorded groundwater inflows can be.

9.5.2 Mine Gas Pathways

Viable pathways have been identified below.

- Migration along joints, fractures and bedding planes within rock units. These features range in orientation from horizontal to vertical within and crossing rock units. They can occur on both small and large scales from centimetres to many tens of meters. The risk of gas migration is greatest from shallow workings defined by the Coal Authority as less than 30m for the surface.
- The risk from mine entries is minimal if greater than 50m from the site, therefore as several mine entries are present in proximity to the site, the pathway through mine entries is considered viable. However, as these features lie off site, migration on to site would still be required. A mine adit is recorded just off-site to the south. Although not targeted during the site investigation to confirm its existence, it is highly likely to exist based on the historical, geological, and Coal Authority maps. This is another significant pathway for the migration of mine gas from workings.
- Mine gas migration through service trenches may occur.
- Soakaway testing at the site found no infiltration in the one location tested. A low soil permeability will restrict the potential for mine gas migration both vertically and laterally. Additionally, there needs to be a pathway into these deposits from the workings for migration to occur through them.
- Boreholes can act as migration pathways for mine gas. Grouting (if designed as gas mitigation) reduces the potential for gas migration. Incompletely grouted works and grout holes can act as sources or pathways for gas migration so grouting may not completely remove risk. As the ground beneath the proposed building is to be stabilised by drilling and grouting, the unsealed grout boreholes could be a significant pathway if not completely grouted up.

The dip of the geology is seen to be shallow below the site with a rate of 6° to the southeast recorded. Given this dip, mine gas would have a long lateral distance to travel along bedding planes to reach the site from all but the shallowest possible working depths. With the increase in distance the viability of intact lateral pathways reduces, and gas is likely to surface along joints and fractures before travelling long distances or encounter more impermeable barriers. Where bedrock is more steeply dipping there is a more direct pathway which is not the case under the study site.

9.5.3 Mine Gas Receptors

Future site users (namely students/parents and visitors) to the proposed development are considered the primary receptors.

9.5.4 Mine Gas Driving Forces

Potential mine gas driving forces are as follows:

- Change in barometric pressure leading to expansion of gas in mine.
- Fluctuating groundwater pushing mine gas up through pathways when rising.
- Thermal gradient, leading to greater emissions in summer.

9.5.5 Groundwater

Groundwater inflows have been recorded in all of the boreholes drilled across the site. All three monitoring wells have also recorded groundwater at less than 3m depth. It is possible that this represents the groundwater table beneath the site. Environmental data provided by the Envirocheck report states that there are a series of streams in the surrounding area, and that there is a limited risk of flooding from groundwater at the surface. This suggests that groundwater is shallow, and that workings beneath the site will be flooded. However, the depth

to groundwater is not conclusive, as the inflows could be from the infiltration of surface water into the ground, or perched groundwater sat upon the top of the cohesive soils. Consequently, it cannot be categorically concluded that the workings beneath the site are permanently flooded.

The spine roadway beneath the site could be significantly shallower than the workings found in the boreholes, and therefore be a significant pathway for mine gas to reach the ground surface. If the workings are permanently flooded, the roadway should not carry mine gas emissions. If at any point the workings do become unflooded, the roadway could act as a significant pathway for mine gas to reach the surface.

Future changes in the level of groundwater could lead to new migration pathways, and previously flooded workings becoming unflooded. Fluctuations in the depth of groundwater can then drive gas from the workings. For this reason, a precautionary approach must be taken when comparing the depth of groundwater with coal mine workings at this site.

The following factors could become responsible for changes to the groundwater level in the future:

1. Grouting of past coal mines can alter the existing groundwater flow.
2. Urban development can reduce infiltration and increase surface runoff, leading to lower recharge rates in some areas.
3. Brownfield redevelopment can involve altering drainage systems, potentially impacting recharge and groundwater flow.
4. Engineered drainage systems, including culverts and surface drains can alter the existing hydrological balance, potentially lowering groundwater levels in affected areas.
5. Changes in land management, particularly upstream. For example, the reintroduction of forests can lead to lower recharge.
6. Climate change. Periods of heavy rain might lead to higher runoff and reduced infiltration, sustained periods of rain might lead to increased infiltration, and periods of dry, warm weather might lead to a drop in the groundwater table.
7. Abstraction for industrial, agricultural or domestic use can lower regional groundwater levels.
8. Mine water management. Pumping from abandoned mines to prevent flooding can lower groundwater levels regionally. If pumping ceases, groundwater may rise.
9. Changes in river stages due to climate, land use, or upstream management can influence nearby groundwater levels.

To categorically determine whether the workings are flooded beneath the site, 3No. groundwater monitoring wells should be installed into the workings and a programme of continuous monitoring should be carried out. The monitoring wells should be triangulated to accurately determine the depth and flow of groundwater beneath the proposed building.

9.5.6 Grouting Works

The site requires stabilisation by drilling and grouting. Grouting can push gas out of workings, or it can potentially divert flows of acidic mine water that can cause generation of carbon dioxide. It is noted that grouting designs are often prepared separately and at different times to other engineering designs and plans for built development. Appropriate assessment of grouting impacts may not be possible during the initial stages of a mine gas risk assessment and the risk assessment may need to be updated once the grouting plan is finalised (and both then subject to iterative change as appropriate).

9.5.7 Conclusions and Recommendations (Mine Gas)

The following conclusions and recommendations are based on the initial collection of gas data and will need to be reviewed on completion of the full monitoring program.

Viable mine gas sources and pathways were identified by the review of the available data. Additional site investigation data has also been collected on site and gas monitoring has been undertaken.

Gas monitoring results are indicative of ambient air and/or microbial respiration of organic materials in soils or air/CO₂ mixing according to ternary plots, however the stoichiometric assessment suggests that the sources may be from the encountered colliery spoil or backfilled workings on site. The lack of mine gas source does not confirm the lack of risk from mine gas though. Mine gas emissions are often intermittent.

At present, it is concluded that the site is likely to be impacted by mine gas. A second phase of mine gas risk assessment should be carried out and is described below.

To categorically determine whether the workings are flooded beneath the site, 3No. groundwater monitoring wells should be installed into the workings and a programme of continuous monitoring should be carried out. The monitoring wells should be triangulated to accurately determine the depth and flow of groundwater beneath the proposed building.

A longer period of continuous gas monitoring is required. As the partially flooded gas wells, which have been used for monitoring to date are not entirely reliable it is recommended that this is carried out at the surface using flux boxes. The flux box should also replicate the proposed raft foundation (see **Section 11.2**). Drilling & grouting has the potential to change mine gas pathways and so it is recommended that this monitoring takes place following the grouting. Gas monitoring should also be carried out throughout the drilling and grouting procedure at the boreholes, and the results recorded to inform the post-grouting assessment.

Boreholes can act as pathways for mine gases, and they should therefore be properly decommissioned during construction. It is recommended that all boreholes are decommissioned and sealed prior to development, to prevent them acting as potential migration pathways for mine gas. Guidance on the decommissioning of boreholes can be found in the document 'Good Practice for Decommissioning Redundant Boreholes and Wells' produced by Natural Scotland (Scottish Government) and Scottish Environment Protection Agency (SEPA) and based on a publication by the same name produced by the Environment Agency in 2012.

To prevent the grout boreholes acting as pathways following the grouting procedure, sacrificial plastic liners should not be used to case the superficial deposits. The boreholes should be cased off using temporary steel casing and grouted from the base using a tremie pipe to ensure a good seal with the surrounding borehole wall. The steel casing should be removed once a hole is filled, and grouting should continue to the surface.

SECTION 10 Quantitative Risk Assessment

10.1 Contaminants of Concern

All soil substances tested for were found to be present at concentrations below their respective human health threshold level.

10.2 Mitigation and Remedial Measures

The following sections summarise the likely mitigation and remedial measures suitable for the identified contamination and proposed development. Detailed methodology to achieve the measures should be prescribed in a Remediation Strategy Report and the results presented in a Validation Report upon completion of the development.

10.2.1 Human Health

10.2.1.1 Contaminated Soils

Site specific mitigation and remedial measures are not required with respect to human health.

As good practice, construction workers should adhere to good site management, COSHH, good standards of hygiene and appropriate health & safety on site, with personal protection equipment (PPE) and dust suppression where appropriate.

All imported soils should be validated as clean and suitable for use in accordance with 'Requirements for the Chemical Testing of Imported Soils for Various End Uses and Validation Cover Systems'.

For proposed new supply water pipes, the UK Water Industry Research publication 'Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites (Report 10/WM/03/21)' should be consulted.

In accordance with EC Regulation 1272/2008 and Environment Agency Guidance WM3 soils destined for off-site disposal should be classified on the basis of their hazard phrases prior to disposal. Soils are classified as a mirror entry waste and should be classified on the basis of their specific chemical properties.

If during earthworks ground conditions are encountered that are markedly different to those found during the investigation, then the ground should be subject to additional sampling and testing and any necessary remedial measures designed and implemented before continuing with the works.

10.2.2 Aquatic Environment

Site specific mitigation and remedial measures are not required with respect to the aquatic environment due to no significant contamination sources identified by the desk study, and the low contamination concentrations identified by the laboratory soil chemical testing. It is considered that the risk of contaminants leaching from the soil into the groundwater or into nearby surface water bodies is negligible.

During the construction period, there is a risk to the environment/adjacent sites from de-watering, digging foundations, moving contaminated soil, drainage misconceptions, discharges to local surface waters or the ground, runoff from construction materials and/or exposed ground, wheel washings and oil or chemical spills.

The risk is considered to be negligible as any adverse effects will be easily preventable by due diligence to good construction practise and housekeeping in preventing surface runoff and the spillage of materials.

The basic measures that should be taken are as follows:

- Prepare a drainage plan and mark the manholes to prevent pollutants accidentally reaching the surface water sewers;
- Carry out any activities that could cause pollution in a designated, bunded area, away from rivers or boreholes. Where possible it should drain to the foul sewer;
- Use settlement ponds to remove silty water;
- Store all oils and chemicals in a fully bunded area to prevent leaks or spills;
- Get advice on whether you need an environmental permit and apply in good time

10.2.3 Combustible Soils

Combustible soils can lead to underground fires, which can give rise to the presence of toxic or corrosive substances, the generation of toxic, asphyxiant or flammable gases, instability of poorly compacted fill, and heat damage to buried structures and site services.

The following criteria are generally adopted and are taken from 'The Reclamation of Former Coal Mines and Steelworks' I.G. Richards *et al* 1993:

- < 2 MJ/kg Unlikely to be combustible,
- > 7 MJ/kg at risk from smouldering,
- >11 MJ/kg at risk of being combustible.

The colliery spoil encountered on site is considered at risk of being combustible. Consequently, suitable remediation measures should be taken. Detailed remediation measures should be outlined in a remediation strategy.

10.2.4 Ground and Mine Gas

To protect the future site users from identified ground and mine gas, proposed structures will need to incorporate within its construction a suitable ground gas protection system. The ground gas protection system should be designed, verified, installed, and validated in accordance with the British Standard 8485:2015+A1:2019 and CIRIA guidance C735:2014.

It is recommended that a specialist consultant is retained to prepare a risk assessed ground gas protection system Verification Plan for the proposed development. The Verification Plan will detail the required protection measures based on the perceived risk associated with the complexity of design, experience of the installer, size of the site and gas characteristic situation. The Verification Plan also details the step by step process and requirements to allow for the completion of a Validation Report. TFW Group Ltd offer Verification and Validation services.

Validation of installed ground gas protection systems by an independent third party will be required upon completion of the development. Validation may only be achieved if processes prescribed in the Verification Plan are undertaken.

SECTION 11 Engineering Recommendations

11.1 Preparation of Site

Areas of vegetation including all roots should be stripped and removed from beneath the proposed development site.

Allowances should be made for any temporary/permanent support works to any existing adjacent structure necessary as a result of the proposed works.

Contingencies should be made for the protection/diversion of any underground/overhead services present beneath/above the site brought about as a result of the proposed works.

Any reduced levels should be brought up to the required levels with suitable inert mainly granular materials. Department of Transport (DTP) type 2 sub-base or similar should be used and compacted in layers to the requirements of the Specification for Highway Works.

Allowances should also be made for the excavation of any soft spots/areas and their replacement with well compacted imported granular materials.

In accordance with EC Regulation 1272/2008 and Environment Agency Guidance WM3 soils and other materials destined for off-site disposal should be classified on the basis of their hazard phrases prior to disposal. Soils are classified as a mirror entry waste and should be classified on the basis of their specific chemical properties. Terra Firma (Wales) Ltd offer this service if required.

11.2 Foundation and Floor Slab Solution

Prior to the site being developed, it is recommended that the shallow workings should be stabilised by drilling and grouting.

A Drilling and Grouting Specification report will need to be produced specifically for the needs of the site development.

Following successful stabilisation of the old workings a reinforced concrete raft foundation founded within the competent made ground can be employed. The raft should be designed to span a residual void of 1.5m with a cantilever effect on corners of 1.0m.

Significant allowances should be made for the removal of soft spots/areas and their replacement with well compacted imported granular materials as previously described.

If any buried obstructions are located beneath the footprints of the proposed dwellings, it is recommended that 1.0m below the foundation should be excavated and recompact in layers in accordance with the Specification for Highway Works. Any over-sized or deleterious material should be removed and any short fall in material should be replaced with DTP Type 1 or 2 granular sub-base.

An allowable bearing pressure of 50kN/m² may be used for design purposes. For the given foundation solution founded within the above materials, a maximum total settlement of 25mm can be expected. Differential settlement of foundations should not lead to structural distortion of more than 1:750.

Suitability of the compaction should be confirmed by in-situ plate load and density testing and supervised by a qualified geotechnical engineer.

All foundation formations should be inspected by a suitably qualified Engineer before being concreted.

If trees are to be incorporated within the proposed development, foundations will need to be taken deeper within influencing distance of the tree root systems. The National House Building Council (NHBC) Chapter 4.2 gives guidelines as to the appropriate type of floor slab and void based on the type of tree, distance of the foundation from the tree and the plasticity index of the in-situ materials.

During the investigation two samples of the in-situ clay were taken and submitted for plasticity testing. In line with the NHBC (Chapter 4.2), the modified plasticity index for each sample was calculated. For design purposes the superficial cohesive deposits should be assumed to have a low volume change potential.

Foundations should be taken down to a minimum depth of 750mm below finished levels when founding in low volume change potential soils.

11.3 Excavations and Formations

Most of the shallow excavations will be possible with normal soil excavating machinery.

Shallow perched water and groundwater flows were encountered during the investigation. Any water inflows together with rainwater infiltration should be dealt with by conventional pumping techniques. However, it should be noted that during times of heavy rainfall a higher water table will be encountered.

The sides of any excavations deeper than 1.20m, or shallower if unstable, should be supported by planking and strutting or other proprietary means.

The sub-formations/formations are likely to be susceptible to loosening, softening and deterioration by exposure to weather (rain, frost and drying conditions), the action of water (flood water or removal of groundwater) and site traffic.

Formations should never be left unprotected and continuously exposed to rain causing degradation, or left exposed/uncovered overnight, unless permitted by a qualified engineer.

Construction plant and other vehicular traffic should not be operated on unprotected formations.

As a minimum the formation/excavation surfaces must be protected by blinding concrete immediately after exposure.

Allowances should be made for the removal of soft spots/areas and their replacement with well compacted granular materials.

Allowances should also be made for special precautions to prevent formation deterioration in addition to the above.

11.4 Protection of Buried Concrete

When the results are compared with Table C2 of BRE Digest 1:2005, it indicates that buried concrete should generally conform to DS-2 AC-2.

11.5 Access Roads and Car Parking Areas

Allowances should be made for the removal of any 'soft spots/areas' and their replacement with well-compacted granular materials as previously described.

Please note that the Local Council / Highways Authority may require in-situ CBR testing to be undertaken before a road is adopted. In-situ CBR Testing should be performed following earthworks to verify the performance of the engineered fill.

11.6 Storm Water Drainage

During the site investigation one soakaway test was undertaken in general accordance with BRE DG 365:2016. The soakaway test was carried out in trial pit TP01 within natural materials.

The soakaway test recorded insufficient infiltration and was subsequently terminated early.

It is considered that soakaway storm water draining is unsuitable at the site.

11.7 Retaining Walls

Due to the sloping nature of the site, mini retaining walls may be required. The existing steepness of any embankments should not be increased. Any cuts should be undertaken in small sections and in such a way so as not to induce any instability to the ground.

If retaining walls are required, the ground should also be stabilised by drilling and grouting in these areas also.

Effective shear parameters for retaining wall design are presented in **Table 11.1**.

Table 11.1 Effective Shear Stress Parameters

Stratum Description	Bulk Unit Weight (γ) kN/m ³	Effective Cohesion (c') kN/m ²	Effective Angle of Shearing Resistance (ϕ') degrees
Made Ground	18	0	20
Soft to firm cohesive soils	18	0	20-25
Firm to stiff cohesive soils	18	0	30
Well compacted, granular materials compacted as per Specification for Highway Works and other relevant guidance such as British Standards (BS) 6031: 1981. Code of Practice for Earthworks.	19-20	0	35-40

The parameters are based on experience in similar ground conditions.

The materials to be in-filled behind the retaining wall should be placed at or close to its optimum moisture content/maximum dry density and compacted in layers as per the requirements of the Specification for Highway Works. During the earthworks suitable in-situ testing should be carried out to ensure that the compaction process is achieving the required maximum dry density to achieve at least 95% compaction.

The acceptability of the filling works should be verified by appropriate on site testing. A certification report should also be prepared on the earthworks by a suitably qualified Geotechnical Engineer.

Appropriate drainage should be incorporated in the design to prevent the build-up of hydrostatic pressure.

Appropriate cutting and benching of the existing slope should be conducted prior to the replacement of any imported fill to minimise the risk of any slip surfaces forming on the interface between the existing imported materials.

SECTION 12 Recommended Further Work

In summary the following additional work is recommended.

1. Stabilisation of shallow mine workings by drilling and grouting.
2. Additional assessment of mine gas risk.
3. Remediation strategy.

12.1 Stabilisation of Shallow Mine Workings

Stabilisation of shallow mine workings should be outlined by a specification report. The specification should ensure that gas monitoring is carried out throughout the stabilisation work, and that the gas concentrations are recorded and used in a refined mine gas risk assessment. It should be ensured that no boreholes used for the drilling and grouting exercise can be potential pathways for mine gas in the future. To ensure this, temporary steel casing should be used, and holes should be grouted from the bottom using a tremie pipe. Plastic, sacrificial casing should not be used as it can lead to an insufficient seal between the grout and the borehole walls.

The specification report should also consider the risk to controlled waters, particularly if grouting takes place below the groundwater table. Work should be carried out to BRE's 'Stabilising Mine Workings with PFA Grouts Environmental Code of Practice'. This may require the sampling of groundwater before, and during the grouting exercise. Surface water bodies downslope from the site should also be inspected on regular intervals to ensure grout is not migrating into waterways.

12.2 Additional Assessment of Mine Gas Risk

As outlined in **Section 9**, further assessment should be carried out. This should include the installation of groundwater monitoring wells, continuous groundwater level monitoring over a prolonged period to ensure the groundwater table is recorded at its highest and lowest, and continuous gas monitoring at the ground surface using flux boxes.

12.3 Remediation Strategy

A remediation strategy should be carried out to detail the measures required to deal with the combustible colliery spoil and any mine gas. This should be carried out following the completion of the mine gas risk assessment.

ANNEX A
Envirocheck Report & Coal Authority Report

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

332266288_1_1

Customer Reference:

18167JR

National Grid Reference:

305760, 206280

Slice:

A

Site Area (Ha):

0.12

Search Buffer (m):

1000

Site Details:

Site at 305760, 206280

Client Details:

Ms J Rual
TFW Group Ltd
5 Deryn Court
Wharfdale Road
Pentwyn
Cardiff
CF23 7HB

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Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 3			1	32
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 12			1	5
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 12		Yes		
Pollution Incidents to Controlled Waters	pg 12			1	6
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 14				4
River Quality Biology Sampling Points	pg 14				1
River Quality Chemistry Sampling Points	pg 15				3
Substantiated Pollution Incident Register	pg 17				3
Water Abstractions	pg 18				(*15)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 21	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 21	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 21	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 22		7	16	110

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 37				3
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)	pg 37				2
Licensed Waste Management Facilities (Locations)	pg 38				4
Local Authority Landfill Coverage	pg 38	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites	pg 39			1	2
Potentially Infilled Land (Non-Water)	pg 39	1		5	8
Potentially Infilled Land (Water)	pg 40				22
Registered Landfill Sites	pg 41				5
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 44	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 44	Yes		Yes	Yes
BGS Recorded Mineral Sites	pg 45	1	2	9	26
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 52	Yes	n/a	n/a	n/a
Mining Instability	pg 52	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 52	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 52	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 52	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 52	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 52	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 52	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 54		1	11	67
Fuel Station Entries	pg 61				2
Points of Interest - Commercial Services	pg 61			2	16
Points of Interest - Education and Health	pg 62				4
Points of Interest - Manufacturing and Production	pg 63		2		5
Points of Interest - Public Infrastructure	pg 63			1	32
Points of Interest - Recreational and Environmental	pg 66			8	7
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 68				2
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (W)	0	1	305758 206280
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (E)	18	1	305800 206280
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	64	1	305800 206350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (E)	68	1	305850 206280
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (E)	72	1	305850 206300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	98	1	305850 206350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	102	1	305758 206400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (N)	109	1	305800 206400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (S)	111	1	305750 206150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (E)	118	1	305900 206280
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (E)	120	1	305900 206300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (NE)	133	1	305850 206400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	152	1	305750 206450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (N)	152	1	305758 206450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (E)	168	1	305950 206280
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (N)	202	1	305750 206500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (S)	229	1	305850 206050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	251	1	305600 206500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	258	1	305700 206550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (E)	269	1	306050 206250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (N)	274	1	305650 206550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (E)	278	1	306050 206350

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	294	1	305600 206550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	312	1	306000 206050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (S)	313	1	305800 205950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	320	1	305550 206550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	327	1	306100 206350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (S)	328	1	305650 205950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	351	1	305500 206550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	362	1	305550 206600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (N)	363	1	305850 206650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (E)	368	1	306150 206280
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NE (S)	387	1	305900 205900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	388	1	306150 206400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	390	1	305500 206600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (N)	406	1	305700 206700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	416	1	306050 206600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (N)	416	1	305650 206700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	418	1	306200 206280
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	422	1	305450 206600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (NE)	424	1	306000 206650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (E)	425	1	306200 206200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (NW)	431	1	305500 206650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (N)	432	1	305600 206700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	435	1	305300 206280
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	443	1	305300 206200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	456	1	305300 206150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SW (N)	465	1	305650 206750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	468	1	306250 206280
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (E)	469	1	306250 206250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A12SE (W)	474	1	305300 206100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A18SW (NW)	474	1	305500 206700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (W)	486	1	305250 206250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	493	1	305250 206200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A17SE (NW)	493	1	305400 206650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (NW)	497	1	305550 206750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	499	1	306250 206450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (E)	500	1	306250 206100
1	Discharge Consents Operator: Celtic Energy Ltd Property Type: Coal Extraction, Surface Location: Great White Tip Site Authority: Natural Resources Wales Catchment Area: River Taff Reference: An0238701 Permit Version: 1 Effective Date: 10th November 1992 Issued Date: 10th November 1992 Revocation Date: 1st November 1996 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: Culvert To River Taff Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A14NW (NE)	460	2	306191 206489

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	Discharge Consents Operator: Celtic Energy Ltd Property Type: Coal Extraction, Surface Location: Great White Tip Site Authority: Natural Resources Wales Catchment Area: River Taff Reference: An0238702 Permit Version: 1 Effective Date: 10th November 1992 Issued Date: 10th November 1992 Revocation Date: 1st November 1996 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: Culvert And Hence To River Taf Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A14NW (NE)	525	2	306256 206503
3	Discharge Consents Operator: Celtic Energy Ltd Property Type: Undefined Or Other Location: Water Tmnt Area Wa (Final) Rec Scme, E Merthyr Rec Scme Tmnt Area Wa, Phase 111a, Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: River Taff Reference: AN0264401 Permit Version: 1 Effective Date: 23rd July 1996 Issued Date: 23rd July 1996 Revocation Date: 2nd October 1997 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: Nant Cwm Blacs Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A14SW (E)	678	2	306420 206045
4	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Trevithick Monument Merthyr, 1 Gwalia Place, Thomas Town, Merthyr Tydfil, Cf47 0aj Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Ae2025307 Permit Version: Not Supplied Effective Date: 11th October 2019 Issued Date: 11th October 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	718	2	305120 206660
4	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Trevithick Monument Merthyr, Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: Ae2025307 Permit Version: 2 Effective Date: 8th December 2001 Issued Date: 7th December 2001 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	718	2	305120 206660

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Trevithick Monument Merthyr, Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: Ae2025307 Permit Version: 2 Effective Date: 8th December 2001 Issued Date: 7th December 2001 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	718	2	305120 206660
4	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Merthyr Tydfil-Trevethick Monu Peny, Penyard Road Authority: Natural Resources Wales Catchment Area: River Taff Reference: AE2025307 Permit Version: 1 Effective Date: 15th April 1964 Issued Date: 15th April 1964 Revocation Date: 7th December 2001 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	732	2	305130 206700
5	Discharge Consents Operator: Merthyr (South Wales) Limited Property Type: Water Treatment Works Location: Cwmbargoed Disposal Point, Fochriw Road, Cwmbargoed, Merthyr Tydfil, Wales, Cf48 4ae Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: An0276501 Permit Version: Not Supplied Effective Date: 4th October 2018 Issued Date: 4th October 2018 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Nant Morlais Status: Effective Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	726	2	306380 206690
5	Discharge Consents Operator: The Company Secretary Property Type: Co-disposal Landfill Sites Location: Water Treatment Area J, East Merthyr Rec Scheme, Merthyr Tydfil, Wales Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: An027650101 Permit Version: 1 Effective Date: 8th January 1999 Issued Date: 8th January 1999 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Nant Morlais Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	726	2	306380 206690

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Discharge Consents Operator: The Company Secretary Property Type: Not Supplied Location: Water Treatment Area J, East Merthyr Rec Scheme, Merthyr Tydfil, Wales Authority: Natural Resources Wales Catchment Area: TAFF - CONF TAF FECHAN TO CONF R CYNON Reference: An0276501 Permit Version: 1 Effective Date: 8th January 1999 Issued Date: 8th January 1999 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Nant Morlais Status: Effective Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	726	2	306380 206690
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: A Cso At Waterloo House Merthyr, Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: Ae2025305 Permit Version: 3 Effective Date: 17th July 2002 Issued Date: 16th July 2002 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A18NW (N)	736	2	305570 207010
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: A Cso At Waterloo House Merthyr, Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: Ae2025305 Permit Version: 3 Effective Date: 17th July 2002 Issued Date: 16th July 2002 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A18NW (N)	736	2	305570 207010
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Merthyr - Waterloo House Authority: Natural Resources Wales Catchment Area: River Taff Reference: AE2025305 Permit Version: 1 Effective Date: 15th April 1964 Issued Date: 15th April 1964 Revocation Date: 30th March 2002 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Morlais Brook Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A18NW (N)	751	2	305590 207030

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: A Cso At Waterloo House Merthyr, Waterloo House, Penydarren, Merthyr Tydfil, Cf47 9ha Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Ae2025305 Permit Version: Not Supplied Effective Date: 7th October 2019 Issued Date: 7th October 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A18NW (N)	753	2	305598 207034
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Waterloo House Merthyr Tydfil, Merthyr Tidfil Authority: Natural Resources Wales Catchment Area: River Taff Reference: Ae2025305 Permit Version: 2 Effective Date: 31st March 2002 Issued Date: 21st December 2001 Revocation Date: 16th July 2002 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A18NW (N)	759	2	305600 207040
7	Discharge Consents Operator: Celtic Energy Ltd Property Type: Undefined Or Other Location: Water Tmnt Area Wa (Storm) Rec Scme, E Merthyr Rec Scme Tmnt Area Wa, Phase 111a, Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: River Taff Reference: AN0264402 Permit Version: 1 Effective Date: 23rd July 1996 Issued Date: 23rd July 1996 Revocation Date: 2nd October 1997 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: Nant Cwm Blacs Status: Authorisation revoked Positional Accuracy: Unknown	A14SE (E)	771	2	306515 206038
8	Discharge Consents Operator: Dwr Cymru Welsh Water Property Type: Water Treatment Works Location: Mountain Hare Fw Pumping Station, Oak Tree Rise/Dan-Y-Graig, Ysgubor Newydd, Merthyr Tydfil, South Wales, Cf47 0sn Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Xb3690hm Permit Version: Not Supplied Effective Date: 19th July 2018 Issued Date: 29th June 2018 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Nant Cwm-Blacs Culvert Status: Effective Positional Accuracy: Located by supplier to within 10m	A8SE (S)	786	2	306056 205532

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	Discharge Consents Operator: Taylor Wimpey Uk Limited Property Type: Sewerage Network - Pumping Station - Others Location: Mountain Hare Fw Pumping Station, Oak Tree Rise/Dan-Y-Graig, Ysgubor Newydd, Merthyr Tydfil, South Wales, Cf47 0sn Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Eprxb3690hm Permit Version: 1 Effective Date: 17th August 2015 Issued Date: 17th August 2015 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Nant Cwm-Blacs Culvert Status: New issued under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A8SE (S)	786	2	306056 205532
8	Discharge Consents Operator: Taylor Wimpey Uk Limited Property Type: Not Supplied Location: Mountain Hare Fw Pumping Station, Oak Tree Rise/Dan-Y-Graig, Ysgubor Newydd, Merthyr Tydfil, South Wales, Cf47 0sn Authority: Natural Resources Wales Catchment Area: TAFF - CONF TAF FECHAN TO CONF R CYNON Reference: Xb3690hm Permit Version: 1 Effective Date: 17th August 2015 Issued Date: 17th August 2015 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Nant Cwm-Blacs Culvert Status: Effective Positional Accuracy: Located by supplier to within 10m	A8SE (S)	786	2	306056 205532
9	Discharge Consents Operator: British Coal Opencast Property Type: Undefined Or Other Location: Merthyr Tydfil - Incline Top O Authority: Natural Resources Wales Catchment Area: River Taff Reference: An0138201 Permit Version: 1 Effective Date: 15th June 1989 Issued Date: 15th June 1989 Revocation Date: 14th April 1994 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: Nant Morlais Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A18NW (N)	804	2	305700 207100
10	Discharge Consents Operator: Celtic Energy Ltd Property Type: Coal Extraction, Surface Location: Great White Tip Site Authority: Natural Resources Wales Catchment Area: River Taff Reference: An0238601 Permit Version: 1 Effective Date: 10th November 1992 Issued Date: 10th November 1992 Revocation Date: 1st November 1996 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: Culvert And Hence To River Taf Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A18NE (NE)	806	2	306076 207040

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	Discharge Consents Operator: The Company Secretary Property Type: Undefined Or Other Location: Wtr Tmnt Area Wa (Final Lag) Rec Sm, E Merthyr Rec Scme Tmnt Area Wa, Phase 111a, Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: River Taff Reference: An0264401 Permit Version: 3 Effective Date: 9th January 1999 Issued Date: 2nd October 1997 Revocation Date: 31st March 2006 Discharge Type: Trade Discharges - Site Drainage Discharge: Not Supplied Environment: Receiving Water: Nant Cwm Blacs Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A14SE (E)	886	2	306610 205960
12	Discharge Consents Operator: Celtic Energy Ltd Property Type: Undefined Or Other Location: Water Tmnt Area Wa (Final) Rec Scme, E Merthyr Rec Scme Tmnt Area Wa, Phase 111a, Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: River Taff Reference: An0264401 Permit Version: 2 Effective Date: 3rd October 1997 Issued Date: 2nd October 1997 Revocation Date: 8th January 1999 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: Nant Cwm Blacs Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A9NE (SE)	900	2	306600 205900
13	Discharge Consents Operator: Celtic Energy Ltd Property Type: Coal Extraction, Surface Location: Great White Tip Site Authority: Natural Resources Wales Catchment Area: River Taff Reference: An0238602 Permit Version: 1 Effective Date: 10th November 1992 Issued Date: 10th November 1992 Revocation Date: 1st November 1996 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: Culvert And Hence To River Taf Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	944	2	306171 207149
14	Discharge Consents Operator: Miller Argent (South Wales) Ltd Property Type: Trade (Unknown/Other) Location: Water Treatment Area Final Effluent, Ffos Y Fran Land Rec Scheme, Merthyr Tydfil, Mid Glamorgan Authority: Natural Resources Wales Catchment Area: River Taff Reference: Eprdb3131af Permit Version: 2 Effective Date: 2nd July 2013 Issued Date: 2nd July 2013 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Nant Bargoed Taff Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A14SE (E)	973	2	306705 205969

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Discharge Consents Operator: Miller Argent (South Wales) Ltd Property Type: Trade (Unknown/Other) Location: Water Treatment Area Final Effluent, Ffos Y Fran Land Rec Scheme, Merthyr Tydfil, Mid Glamorgan Authority: Natural Resources Wales Catchment Area: River Taff Reference: Eprdb3131af Permit Version: 2 Effective Date: 2nd July 2013 Issued Date: 2nd July 2013 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Nant Bargoed Taff Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A14SE (E)	973	2	306705 205969
14	Discharge Consents Operator: Miller Argent (South Wales) Ltd Property Type: Trade (Unknown/Other) Location: Water Treatment Area Final Effluent, Ffos Y Fran Land Rec Scheme, Merthyr Tydfil, Mid Glamorgan Authority: Natural Resources Wales Catchment Area: River Taff Reference: Eprdb3131af Permit Version: 1 Effective Date: 30th March 2012 Issued Date: 30th March 2012 Revocation Date: 1st July 2013 Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Nant Bargoed Taff Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A14SE (E)	973	2	306705 205969
14	Discharge Consents Operator: Miller Argent (South Wales) Ltd Property Type: Trade (Unknown/Other) Location: Water Treatment Area Final Effluent, Ffos Y Fran Land Rec Scheme, Merthyr Tydfil, Mid Glamorgan Authority: Natural Resources Wales Catchment Area: River Taff Reference: Eprdb3131af Permit Version: 1 Effective Date: 30th March 2012 Issued Date: 30th March 2012 Revocation Date: 1st July 2013 Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Nant Bargoed Taff Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A14SE (E)	973	2	306705 205969
14	Discharge Consents Operator: Miller Argent (South Wales) Ltd Property Type: Trade (Unknown/Other) Location: Water Treatment Area Wa Final Efflu, Ffos Y Fran Land Rec Scheme, Merthyr Tydfil, Mid Glamorgan Authority: Natural Resources Wales Catchment Area: River Taff Reference: An0264401 Permit Version: 4 Effective Date: 1st January 2013 Issued Date: 18th November 2005 Revocation Date: 29th March 2012 Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Nant Cwm Blacs Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A14SE (E)	973	2	306705 205969

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Discharge Consents Operator: Miller Argent (South Wales) Ltd Property Type: Trade (Unknown/Other) Location: Water Treatment Area Wa Final Efflu, Ffos Y Fran Land Rec Scheme, Merthyr Tydfil, Mid Glamorgan Authority: Natural Resources Wales Catchment Area: River Taff Reference: An0264402 Permit Version: 4 Effective Date: 1st January 2013 Issued Date: 18th November 2005 Revocation Date: 29th March 2012 Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Nant Cwm Blacs Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A14SE (E)	973	2	306705 205969
15	Discharge Consents Operator: Celtic Energy Ltd Property Type: Undefined Or Other Location: Water Tmnt Area Wa (Storm) Rec Scme, E Merthyr Rec Scme Tmnt Area Wa, Phase 111a, Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: River Taff Reference: An0264402 Permit Version: 2 Effective Date: 3rd October 1997 Issued Date: 2nd October 1997 Revocation Date: 8th January 1999 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: Nant Cwm Blacs Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A9NE (E)	992	2	306700 205900
16	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Merthyr Tydfil - Willows Gas W Authority: Natural Resources Wales Catchment Area: River Taff Reference: AN0091001 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 20th December 2001 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Taff Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	993	2	305360 205350
17	Discharge Consents Operator: Nmc (Uk) Ltd Property Type: Undefined Or Other Location: Afan Taff Htl Rhydycar Merthyr Tyd, Rhydycar Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: River Taff Reference: An0115702 Permit Version: 1 Effective Date: 28th November 1988 Issued Date: 28th November 1988 Revocation Date: 16th January 1995 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Taff Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	993	2	304900 205750

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	Local Authority Pollution Prevention and Controls Name: British Coal Opencast Location: Incline Top Opencast Site, Goatmill Road, MERTHYR TYDFIL, Mid Glamorgan, CF48 3TD Authority: Merthyr Tydfil County Borough Council, Environmental Health Department Permit Reference: PG (3)/5(91)-1 Dated: 26th February 1993 Process Type: Local Authority Pollution Prevention and Control Description: PG3/5 Coal, coke and coal product processes Status: Authorisation revoked Positional Accuracy: Located by supplier to within 10m	A13NE (NE)	342	3	305920 206601
19	Local Authority Pollution Prevention and Controls Name: Texaco LtdStar Location: High Street, Penydarren, Merthyr Tydfil, Mid Glamorgan, CF47 9HA Authority: Merthyr Tydfil County Borough Council, Environmental Health Department Permit Reference: PG 1/14(96)-4 Dated: 1st March 1999 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Authorisation revoked Positional Accuracy: Automatically positioned to the address	A18NW (N)	778	3	305574 207054
19	Local Authority Pollution Prevention and Controls Name: Shell Service Stations Location: High Street, Penydaren, MERTHYR TYDFIL, Mid Glamorgan, CF47 9HA Authority: Merthyr Tydfil County Borough Council, Environmental Health Department Permit Reference: Pg 1/14[96]-5 Dated: 1st March 1999 Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Authorised Positional Accuracy: Automatically positioned to the address	A18NW (N)	778	3	305574 207054
20	Local Authority Pollution Prevention and Controls Name: Celtic Energy Ltd Location: Great White Tip Opencast Site, Goatmill Road Authority: Merthyr Tydfil County Borough Council, Environmental Health Department Permit Reference: PG (3)/5(91)-5 Dated: 26th February 1993 Process Type: Local Authority Pollution Prevention and Control Description: PG3/5 Coal, coke and coal product processes Status: Authorisation revoked Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	786	3	306259 206909
21	Local Authority Pollution Prevention and Controls Name: Petrogas Group Uk Ltd Location: 3-3a Lower High Street, Methyr Tydfil Authority: Merthyr Tydfil County Borough Council, Environmental Health Department Permit Reference: PPC/PG1.14/04/10 Dated: 1st March 1999 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Manually positioned to the address or location	A7NW (SW)	874	3	305081 205703
22	Local Authority Pollution Prevention and Controls Name: Triumph Furniture Ltd Location: Tbs (South Wales) Ltd, Unit 3, Goat Mill Road Authority: Merthyr Tydfil County Borough Council, Environmental Health Department Permit Reference: PPC/PG6.5/15 Dated: 9th February 2015 Process Type: Local Authority Pollution Prevention and Control Description: PG6/2 Manufacture of timber and wood-based products Status: Permitted Positional Accuracy: Manually positioned to the address or location	A18NE (N)	940	3	306076 207184
	Nearest Surface Water Feature	A13NE (NE)	154	-	305854 206422
23	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Goat Mill Road Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 13th March 1997 Incident Reference: 31912 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (E)	425	4	306200 206200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	Pollution Incidents to Controlled Waters Property Type: Road (Lost Load) Location: Bogey Road, Roundabout, MERTHYR TYDFIL Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Accidental Spillage/Leakage Incident Date: 15th May 1995 Incident Reference: 24189 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Burst Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (E)	547	4	306300 206100
25	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Theatre Royal Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 1st December 1994 Incident Reference: 22063 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	675	4	305200 206700
26	Pollution Incidents to Controlled Waters Property Type: Not Given Location: The Avenue, MERTHYR Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 9th April 1992 Incident Reference: 3630 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A18NW (N)	748	4	305500 207000
27	Pollution Incidents to Controlled Waters Property Type: Not Given Location: At Rear Of Caslte Cinema Car Park Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blockage Incident Date: 11th April 1997 Incident Reference: 32011 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NW (W)	941	4	304800 206400
28	Pollution Incidents to Controlled Waters Property Type: Road Location: Merthyr Weir Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Deliberate Act Incident Date: 25th March 1995 Incident Reference: 23038 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SW (W)	978	4	304800 206000
29	Pollution Incidents to Controlled Waters Property Type: Not Given Location: St Tydfil Court Authority: Environment Agency, Welsh Region Pollutant: Rubble/Litter Or Solids Note: River Taff Incident Date: 5th February 1998 Incident Reference: 34791 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Neglect Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	993	4	304900 205750

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality Name: Nant Morlais GQA Grade: River Quality C Reach: Conf.Taff - Conf.Goitre Bk Estimated Distance 1 (km): Flow Rate: Flow less than 0.62 cumecs Flow Type: River Year: 2000	A17SE (NW)	649	4	305365 206821
	River Quality Name: Nant Morlais GQA Grade: River Quality C Reach: Conf.Goitre Bk.-Headwaters Estimated Distance 2.4 (km): Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A17SE (NW)	649	4	305370 206825
	River Quality Name: Taff GQA Grade: River Quality A Reach: Conf.Nant Rhyd'R-Conf.Morlais Estimated Distance 1.1 (km): Flow Rate: Flow less than 5 cumecs Flow Type: River Year: 2000	A7SW (SW)	951	4	305071 205600
	River Quality Name: Taff GQA Grade: River Quality A Reach: Conf.Nant Cannaid-Nant Rhyd Y Car Estimated Distance 1.5 (km): Flow Rate: Flow less than 5 cumecs Flow Type: River Year: 2000	A7SW (SW)	951	4	305071 205600
30	River Quality Biology Sampling Points Name: Morlais Reach: Confluence River Taff To Confluence Goitre Brook Estimated Distance: 1.00 Positional Accuracy: Located by supplier to within 100m Year: 1990 GQA Grade: River Quality Biology GQA Grade E - Poor Year: 1995 GQA Grade: River Quality Biology GQA Grade E - Poor Year: 2000 GQA Grade: River Quality Biology GQA Grade D - Fair Year: 2002 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 2003 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 2004 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2005 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2006 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2007 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2008 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2009 GQA Grade: River Quality Biology GQA Grade C - Fairly Good	A17SE (NW)	671	4	305300 206800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
31	River Quality Chemistry Sampling Points Name: Nant Morlais Reach: Confluence River Taff To Confluence Goitre Brook Estimated Distance: 1.00 Objective: Not Supplied Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Chemistry GQA Grade D - Fair Compliance: Not Supplied Year: 1993 GQA Grade: River Quality Chemistry GQA Grade D - Fair Compliance: Not Supplied Year: 1994 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied Year: 1995 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied Year: 1996 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied Year: 1997 GQA Grade: River Quality Chemistry GQA Grade D - Fair Compliance: Not Supplied Year: 1998 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 1999 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2000 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2001 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2002 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2003 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2004 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2005 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2006 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2007 GQA Grade: River Quality Chemistry GQA Grade D - Fair Compliance: Not Supplied Year: 2008 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied Year: 2009 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied	A12NW (W)	843	4	304909 206459

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
31	River Quality Chemistry Sampling Points Name: Nant Morlais Reach: Confluence Goitre Brook To Headwaters Estimated Distance: 2.40 Objective: Not Supplied Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Chemistry GQA Grade D - Fair Compliance: Not Supplied Year: 1993 GQA Grade: River Quality Chemistry GQA Grade D - Fair Compliance: Not Supplied Year: 1994 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied Year: 1995 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied Year: 1996 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied Year: 1997 GQA Grade: River Quality Chemistry GQA Grade D - Fair Compliance: Not Supplied Year: 1998 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 1999 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2000 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2001 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2002 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2003 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2004 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2005 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2006 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2007 GQA Grade: River Quality Chemistry GQA Grade D - Fair Compliance: Not Supplied Year: 2008 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied Year: 2009 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied	A12NW (W)	843	4	304909 206459

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	River Quality Chemistry Sampling Points Name: Taff Reach: Confluence Nant Rhyd'R To Confluence Morlais Estimated Distance: 1.10 Objective: Not Supplied Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 1993 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 1994 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 1995 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 1996 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 1997 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1998 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1999 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2000 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2001 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2002 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2003 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2004 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2005 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2006 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2007 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2008 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2009 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied	A7NW (SW)	998	4	304988 205621
33	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 5th February 2007 Incident Reference: 467094 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants and Effects: Landfill Odour	A8NE (SE)	552	2	306007 205766
34	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 4th September 2013 Incident Reference: 1155986 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Inert : Construction / Demolition Material Pollutant: Inert Materials And Wastes: Soils And Clay Pollutant: Other Pollutant Pollutant: Specific Waste Materials: Household Waste Pollutant: Specific Waste Materials: Tyres	A9NW (SE)	737	2	306409 205887

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
35	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 5th August 2021 Incident Reference: 2106721 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Inert Materials And Wastes: Soils And Clay	A18NW (N)	768	2	305615 207053
	Water Abstractions Operator: P Forker Contractors Limited Licence Number: 21/57/22/0037 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, Welsh Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: River Daily Rate (m3): 300 Yearly Rate (m3): 15000 Details: River Taff Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A11SE (W)	1062	4	304700 206050
	Water Abstractions Operator: Merthyr (South Wales) Ltd Licence Number: Wa/057/0022/0004 Permit Version: Not Supplied Location: Ffos-Y-Fran Land Reclamation Scheme, Merthyr Tydfil, Merthyr Tydfil, Cf48 4ah Authority: Natural Resources Wales Abstraction: Extractive: Transfer Between Sources Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15NE (E)	1585	2	307340 206568
	Water Abstractions Operator: TBS (South Wales) Ltd Licence Number: 21/57/22/0035 Permit Version: 100 Location: Borehole At Tbs (South Wales) Ltd Authority: Environment Agency, Welsh Region Abstraction: Other Industrial/Commercial/Public Services: General Washing/Process Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Borehole - Depth 93 M Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 14th October 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A2SE (S)	1670	4	305190 204690
	Water Abstractions Operator: Hoover Plc Licence Number: 21/57/22/0025 Permit Version: 100 Location: Nant Canaid At Glyn-Dyrys Authority: Natural Resources Wales Abstraction: Machinery And Electronics: General Use (Low Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Nant Canaid Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 30th October 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A2SE (S)	1746	2	305160 204620

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Hoover Plc Licence Number: 21/57/22/0025 Permit Version: 100 Location: Nant Canaid At Glyn-Dyrys Authority: Natural Resources Wales Abstraction: Machinery And Electronics: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Licenced from 01-Jan to 31-Dec Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 30th October 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A2SE (S)	1750	2	305160 204615
	Water Abstractions Operator: Merthyr (South Wales) Limited Licence Number: 21/57/22/0009 Permit Version: Not Supplied Location: Transfers Reservoirs A, B & Cabstraction From Reservoir D, Four Reservoirs, Cf48 4ah Authority: Natural Resources Wales Abstraction: Extractive: Transfer Between Sources Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1849	2	307590 205890
	Water Abstractions Operator: Miller Argent (South Wales) Ltd Licence Number: 21/57/22/0009 Permit Version: 103 Location: Reservoir C Authority: Natural Resources Wales Abstraction: Extractive: Transfer Between Sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 14th December 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1856	2	307600 205900
	Water Abstractions Operator: Miller Argent (South Wales) Ltd Licence Number: 21/57/22/0009 Permit Version: 102 Location: Reservoir C Authority: Environment Agency, Welsh Region Abstraction: Extractive: Transfer Between Sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 8th September 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1856	4	307600 205900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Miller Argent (South Wales) Ltd Licence Number: 21/57/22/0009 Permit Version: 101 Location: Reservoir C Authority: Environment Agency, Welsh Region Abstraction: Extractive: Transfer Between Sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 24th September 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1856	4	307600 205900
	Water Abstractions Operator: Celtic Energy Ltd Licence Number: 21/57/22/0009 Permit Version: 100 Location: Reservoir C Authority: Environment Agency, Welsh Region Abstraction: Extractive: Transfer Between Sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Reservoir Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 1995 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1856	4	307600 205900
	Water Abstractions Operator: Merthyr (South Wales) Limited Licence Number: 21/57/22/0009 Permit Version: Not Supplied Location: Transfers Reservoirs A, B & Cabstraction From Reservoir D, Four Reservoirs, Cf48 4ah Authority: Natural Resources Wales Abstraction: Extractive: Transfer Between Sources Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1908	2	307690 206300
	Water Abstractions Operator: Miller Argent (South Wales) Ltd Licence Number: 21/57/22/0009 Permit Version: 103 Location: Reservoir A Authority: Natural Resources Wales Abstraction: Extractive: Transfer Between Sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 14th December 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1918	2	307700 206300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Miller Argent (South Wales) Ltd Licence Number: 21/57/22/0009 Permit Version: 102 Location: Reservoir A Authority: Environment Agency, Welsh Region Abstraction: Extractive: Transfer Between Sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 8th September 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1918	4	307700 206300
	Water Abstractions Operator: Miller Argent (South Wales) Ltd Licence Number: 21/57/22/0009 Permit Version: 101 Location: Reservoir A Authority: Environment Agency, Welsh Region Abstraction: Extractive: Transfer Between Sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 24th September 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1918	4	307700 206300
	Water Abstractions Operator: Celtic Energy Ltd Licence Number: 21/57/22/0009 Permit Version: 100 Location: Reservoir A Authority: Environment Agency, Welsh Region Abstraction: Extractive: Transfer Between Sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Reservoir Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 1995 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1918	4	307700 206300
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - Low Vulnerability Combined Vulnerability: Low Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: <40% Superficial Patchiness: <90% Superficial Thickness: 3-10m Superficial Recharge: Low	A13NE (W)	0	2	305758 206280
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NE (W)	0	2	305758 206280
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13NE (W)	0	2	305758 206280
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
36	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 196.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13NE (NE)	155	5	305853 206424
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13NE (NE)	169	5	305894 206408
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 65.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13NE (NE)	170	5	305898 206404
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13NE (E)	174	5	305939 206354
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 210.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13NE (E)	175	5	305940 206353
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 223.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13SE (E)	201	5	305982 206252
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 109.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13SE (SE)	244	5	305981 206134
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 66.8 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13SE (SE)	252	5	305929 206067

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13NE (N)	258	5	305782 206556
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 303.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13NE (N)	265	5	305776 206563
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 76.2 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13SE (SE)	273	5	305935 206045
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13SE (SE)	274	5	305886 206017
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 162.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13SE (SE)	280	5	305892 206013
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13NE (NE)	330	5	305895 206600
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 263.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13NE (NE)	330	5	305895 206600
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 308.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13NE (N)	332	5	305881 206607
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 159.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14NW (E)	340	5	306117 206332

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 28.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8NE (SE)	416	5	306024 205933
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 107.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8NE (SE)	417	5	306021 205931
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 65.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8NE (SE)	441	5	305942 205859
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 165.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (E)	444	5	306226 206273
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 148.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18SE (N)	482	5	305914 206755
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 152.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8NE (S)	500	5	305938 205794
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 97.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NW (SE)	503	5	306159 205941
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 425.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (SE)	528	5	306220 205979
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 331.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NW (SE)	543	5	306133 205858

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NW (SE)	543	5	306133 205858
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18SW (N)	546	5	305686 206840
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.8 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18SW (N)	557	5	305681 206849
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 105.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18SW (N)	559	5	305680 206851
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18SE (N)	560	5	305811 206856
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 93.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18SE (N)	565	5	305810 206861
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 256.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (SE)	588	5	306277 205958
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 96.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (SE)	588	5	306277 205958
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 342.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14NW (E)	599	5	306379 206316

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 87.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A14SW (E)	604	5	306384 206228
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18SW (N)	608	5	305632 206893
73	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 1.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18SW (N)	608	5	305634 206893
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18SW (N)	615	5	305633 206900
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 83.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18SW (N)	616	5	305630 206901
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 147.8 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8NE (S)	626	5	305891 205649
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8NE (S)	626	5	305891 205649
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 58.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8NE (SE)	635	5	306048 205694
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 71.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A14SW (E)	638	5	306407 206147

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 90.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8NE (S)	640	5	305882 205632
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18SE (N)	642	5	305762 206940
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18SW (N)	645	5	305718 206942
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 74.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (SE)	645	5	306363 205995
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 49.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18SW (N)	648	5	305758 206946
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14NW (NE)	652	5	306365 206570
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 36.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14NW (NE)	656	5	306367 206574
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 31.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18SW (N)	656	5	305728 206954
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 515.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A17SE (NW)	670	5	305328 206821

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
89	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 560.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A14NW (NE)	678	5	306373 206610
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 296.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14NW (NE)	678	5	306373 206610
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 53.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (E)	680	5	306420 206043
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 346.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A17SE (NW)	683	5	305212 206728
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 49.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A17SE (NW)	683	5	305211 206726
94	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 29.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	686	5	305727 206983
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 28.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A17SE (NW)	694	5	305162 206681
96	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 27.0 Watercourse Level: Underground Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A17SE (NW)	695	5	305158 206675
97	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A17SE (NW)	696	5	305173 206699

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A17SE (NW)	706	5	305135 206661
99	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	710	5	305710 207006
100	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 107.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	712	5	305708 207009
101	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 329.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	712	5	305708 207009
102	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 74.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A17SE (NW)	714	5	305123 206657
103	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A17SE (NW)	714	5	305122 206655
104	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SE (E)	718	5	306449 206012
105	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 65.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12NE (NW)	718	5	305087 206598
106	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 36.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SE (E)	720	5	306467 206054

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
107	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 79.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NW (SE)	721	5	306127 205638
108	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 34.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8SE (S)	730	5	305902 205544
109	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 309.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12NW (W)	750	5	305021 206518
110	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SE (E)	754	5	306495 206031
111	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 38.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SE (E)	754	5	306495 206031
112	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 481.0 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12NW (W)	754	5	305032 206561
113	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 56.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8SE (S)	763	5	305916 205514
114	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	765	5	305615 207049
115	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 319.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwmblacs Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NW (SE)	768	5	306284 205692

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
116	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 158.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwmbblacs Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9SW (SE)	775	5	306166 205598
117	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.8 Watercourse Level: Underground Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	781	5	305629 207068
118	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.0 Watercourse Level: Underground Permanent: True Watercourse Name: Nant Cwmbblacs Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NW (SE)	784	5	306249 205643
119	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 118.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwmbblacs Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8SE (S)	786	5	306062 205534
120	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 58.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwmbblacs Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9SW (SE)	786	5	306099 205552
121	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	787	5	305628 207074
122	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SE (E)	791	5	306528 206013
123	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	792	5	305629 207080
124	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	793	5	305629 207081

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
125	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 111.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	793	5	305629 207081
126	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 62.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	794	5	305720 207091
127	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 333.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	795	5	305628 207082
128	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 37.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	799	5	305731 207097
129	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwmbblacs Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8SE (S)	802	5	305956 205483
130	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 63.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NE (N)	805	5	306062 207044
131	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 381.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NE (NE)	805	5	306076 207038
132	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 56.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwmbblacs Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8SE (S)	808	5	305937 205472
133	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 70.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	823	5	305683 207118

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
134	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 95.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwmlblacs Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8SE (S)	845	5	305903 205428
135	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 45.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (SE)	870	5	306498 205780
136	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	878	5	305683 207173
137	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	885	5	305688 207180
138	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 359.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A18NW (N)	886	5	305690 207181
139	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 544.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (SE)	899	5	306543 205797
140	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 54.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (SE)	899	5	306539 205790
141	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 179.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12NW (W)	918	5	304821 206369
142	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwmlblacs Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8SE (S)	923	5	305860 205343

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
143	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-bwch Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8SE (S)	923	5	305860 205343
144	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 215.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-bwch Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8SE (S)	928	5	305920 205347
145	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.8 Watercourse Level: Underground Permanent: True Watercourse Name: Nant Cwmblacs Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8SE (S)	930	5	305856 205336
146	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 338.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-bwch Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9SW (SE)	935	5	306321 205508
147	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 49.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A8SE (S)	942	5	306079 205374
148	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-bwch Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8SE (S)	942	5	306079 205374
149	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 51.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-bwch Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8SE (S)	942	5	306096 205380
150	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 57.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwmblacs Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A8SE (S)	945	5	305844 205320
151	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 156.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A8SE (S)	946	5	306034 205355

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
152	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 66.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (SE)	950	5	306593 205779
153	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.3 Watercourse Level: Underground Permanent: True Watercourse Name: Nant Cwm-bwch Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9SW (SE)	955	5	306411 205555
154	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 54.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-bwch Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9SW (SE)	955	5	306411 205555
155	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 764.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-bwch Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9SE (SE)	963	5	306456 205585
156	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 27.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A7SW (SW)	973	5	305070 205569
157	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A7SW (SW)	974	5	305065 205573
158	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A7SW (SW)	974	5	305065 205573
159	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7SW (SW)	977	5	305051 205583
160	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7SW (SW)	977	5	305051 205583

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
161	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 235.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7SW (SW)	980	5	305040 205591
162	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A7SW (SW)	980	5	305040 205591
163	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7SW (SW)	984	5	305051 205574
164	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7SW (SW)	986	5	305062 205559
165	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 176.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7SW (SW)	986	5	305071 205550
166	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 245.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A17NE (NW)	991	5	305113 207060
167	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 101.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwmlblacs Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A3NE (S)	996	5	305821 205267
168	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A3NE (S)	996	5	305821 205267

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
169	Historical Landfill Sites Licence Holder: Roy Thomas Location: Merthyr Tydfil Name: Bogey Road Tip Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14534 First Input Date: 31st December 1980 Last Input Date: 31st December 1985 Specified Waste Type: Deposited Waste included Inert, Industrial, Commercial, Household and Special Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6925/0004 BGS Ref: Not Supplied Other Ref: Not Supplied	A9NW (SE)	734	2	306421 205913
170	Historical Landfill Sites Licence Holder: Mr and Mrs Mahoney Location: Ysgubor Newydd, Merthyr Tydfil Name: Pencoedcae Farm Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14538 First Input Date: 31st December 1974 Last Input Date: 31st December 1992 Specified Waste Type: Deposited Waste included Inert Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6925/0023 BGS Ref: Not Supplied Other Ref: 4	A9NW (SE)	811	2	306258 205616
171	Historical Landfill Sites Licence Holder: Not Supplied Location: Bogey Road, Mountain Hare, Merthyr Tydfil Name: Incline Side Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14982 First Input Date: 31st December 1989 Last Input Date: 31st December 1990 Specified Waste Type: Deposited Waste included Inert Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6925/0018 BGS Ref: Not Supplied Other Ref: Not Supplied	A9NE (SE)	857	2	306569 205937
172	Licensed Waste Management Facilities (Landfill Boundaries) Name: Ael Y Bryn Landfill Licence Number: 30017 Location: Ael Y Bryn Landfill, Mountain Hare Road, Mountain Hare, Merthyr Tydfil, Glamorgan, CF47 0LH Licence Holder: Hurley T Authority: Natural Resources Wales Site Category: Landfills Taking Other Wastes (Construction, Demolition, Dredgings) Max Input Rate: Not Supplied Licence Status: Closure Issued: 21st March 1987 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A14SW (SE)	526	2	306214 205973
173	Licensed Waste Management Facilities (Landfill Boundaries) Name: Pencoedcae Farm Landfill Licence Number: 30126 Location: Pencoedcae Farm Landfill, Cwmbblacs Slip Road, Cwmbblacs, Merthyr Tydfil, Glamorgan, CF48 4AJ Licence Holder: Harris Andrew Authority: Natural Resources Wales Site Category: Landfills Taking Other Wastes (Construction, Demolition, Dredgings) Max Input Rate: Not Supplied Licence Status: Closure Issued: 18th May 1994 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A9NW (SE)	805	2	306257 205622

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
174	Licensed Waste Management Facilities (Locations) Licence Number: FP3399FP Location: Ael Y Bryn Landfill, Mountain Hare, Merthyr Tydfil, Glamorgan, Merthyr Tydfil, CF47 0LH Operator Name: Tony Hurley Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Landfills Taking Other Wastes (Construction, Demolition, Dredgings) Licence Status: Surrendered Issued: 21st March 1987 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 23rd May 2016 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	706	2	306385 205908
174	Licensed Waste Management Facilities (Locations) Licence Number: 30017 Location: Ael Y Bryn Landfill, Mountain Hare Road, Mountain Hare, Merthyr Tydfil, CF47 0LH Operator Name: Hurley T Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Landfills Taking Other Wastes (Construction, Demolition, Dredgings) Licence Status: Closed Issued: 21st March 1987 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	706	2	306385 205908
175	Licensed Waste Management Facilities (Locations) Licence Number: DP3799FX Location: Cwmblacs, Merthyr Tydfil, Glamorgan, CF48 4AJ Operator Name: Andrew Harris Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Landfills Taking Other Wastes (Construction, Demolition, Dredgings) Licence Status: Effective Issued: 18th May 1994 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	809	2	306260 205620
175	Licensed Waste Management Facilities (Locations) Licence Number: 30126 Location: Pencoedcae Farm Landfill, Cwmblacs Slip Road, Cwmblacs, Merthyr Tydfil, CF48 4AJ Operator Name: Harris Andrew Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Landfills Taking Other Wastes (Construction, Demolition, Dredgings) Licence Status: Closed Issued: 18th May 1994 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	809	2	306260 205620
	Local Authority Landfill Coverage Name: Merthyr Tydfil County Borough Council - Has supplied landfill data		0	3	305758 206280

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
176	Local Authority Recorded Landfill Sites Location: Cwmbargoed Lower Reference: 111 Authority: Merthyr Tydfil County Borough Council, Environmental Health Department Last Reported Status: Closed Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A14SW (SE)	497	3	306235 206070
177	Local Authority Recorded Landfill Sites Location: B.S.C Dowlais Tips Reference: 102 Authority: Merthyr Tydfil County Borough Council, Environmental Health Department Last Reported Status: Closed Types of Waste: Not Supplied Date of Closure: 31/12/1979 Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A19SW (NE)	641	3	306137 206819
178	Local Authority Recorded Landfill Sites Location: Pencoedcae Farm, Cwmblocks Reference: 103 Authority: Merthyr Tydfil County Borough Council, Environmental Health Department Last Reported Status: Closed Types of Waste: Not Supplied Date of Closure: 31/12/1983 Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A9NW (SE)	783	3	306306 205691
179	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13NE (W)	0	-	305758 206280
180	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13SE (SE)	267	-	305961 206075
181	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13SW (W)	277	-	305457 206278
182	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13SE (E)	303	-	306085 206267
183	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13SW (S)	306	-	305642 205976
184	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A8NE (SE)	431	-	305948 205872
185	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A8NE (S)	511	-	305943 205783
186	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A19SW (NE)	532	-	306103 206707
187	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A8NE (SE)	554	-	306087 205809
188	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A19SW (NE)	600	-	306184 206727

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
189	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A19SW (NE)	650	-	306154 206817
190	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A19SW (NE)	768	-	306288 206859
191	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A9NW (SE)	790	-	306313 205688
192	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A14NE (E)	811	-	306592 206319
193	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A9NW (SE)	548	-	306195 205914
194	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A12NE (W)	549	-	305219 206476
195	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A14NE (E)	735	-	306500 206430
196	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A14NE (E)	736	-	306510 206388
197	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A19SW (NE)	760	-	306217 206908
198	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14NE (E)	760	-	306516 206474
199	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A19SW (NE)	780	-	306327 206838
200	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A14NE (E)	821	-	306581 206463
201	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A19NW (NE)	828	-	306251 206968
202	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A8SW (S)	831	-	305724 205431
203	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A19NW (NE)	858	-	306128 207074
204	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A18NW (N)	861	-	305432 207095
205	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A17NE (NW)	875	-	305180 206965
206	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A17NE (NW)	903	-	305161 206986
207	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A8SW (S)	911	-	305583 205367
208	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A12NW (W)	919	-	304820 206375

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
209	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A12NW (W)	941	-	304848 206603
210	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A17SW (NW)	943	-	304930 206779
211	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1901	A7SE (SW)	943	-	305209 205492
212	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A9SW (SE)	954	-	306188 205407
213	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A17SW (NW)	956	-	304878 206712
214	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A19NW (NE)	972	-	306408 207026
215	Registered Landfill Sites Licence Holder: T Hurley Licence Reference: 890056 Site Location: Ael Y Bryn Landfill, Mountain Hare, MERTHYR TYDFIL, Mid Glamorgan, CF47 0LH Licence Easting: 306300 Licence Northing: 205850 Operator Location: 20 Dyffryn Street, PONTLOTTYN, Mid Glamorgan, CF81 9RQ Authority: Environment Agency Wales, South East Area Site Category: Landfill Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Operational as far as is known Dated: 1st May 1990 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Brick Max.Waste Permitted By Licence Soil, Subsoil, Excav'N Waste Prohibited Waste: Any Substances In Eec Dir. 80/68 Biodegradable Waste Flammable Liquids Percussive/Explosive/Similar Waste Poisonous, Noxious, Polluting Wastes Pumpable Sludges (< 20% Dry Solids) Sub'S Control. Radioactive Subs Act'60 Wast In Sealed Drums Waste N.O.S.	A9NW (SE)	669	4	306300 205850

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
216	Registered Landfill Sites Licence Holder: Mr & Mrs Mahoney Licence Reference: 4 Site Location: Pencoedcae Farm, Cwmblacks, Mountain Hare, Merthyr Tydfil, Mid Glamorgan Licence Easting: 306340 Licence Northing: 205680 Operator Location: As Site Address Authority: Environment Agency Wales, South East Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st September 1979 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste Commercial Waste Construction And Demolition Wastes Excavated Natural Materials \$ Ind. Non-Haz. Inert, Non-Flammable Ind. Non-Haz. Non-Toxic Waste Mine And Quarry Wastes	A9NW (SE)	814	4	306340 205680
217	Registered Landfill Sites Licence Holder: R Thomas Licence Reference: 890057 Site Location: 3 Incline Side, Mountain Hare, Merthyr Tydfil, Mid Glamorgan Licence Easting: 306630 Licence Northing: 205890 Operator Location: As Site Address Authority: Environment Agency Wales, South East Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st June 1989 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste Excavation Soil & Topsoil	A9NE (SE)	932	4	306630 205890
218	Registered Landfill Sites Licence Holder: A Harris Licence Reference: 940132 Site Location: Pencoedcae Farm, Cwmblacks Slip Road, Mountain Hare, MERTHYR TYDFIL, Mid Glamorgan, CF48 4AJ Licence Easting: 306600 Licence Northing: 205750 Operator Location: As Site Address Authority: Environment Agency Wales, South East Area Site Category: Landfill Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Site closed (licence suspended)Site Closed Dated: 18th May 1994 Preceded By: 930126 Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste Brick Max.Waste Permitted By Licence Nat'L Stone & Slate Soil, Subsoil, Excav'N Waste Any Substances In Eec Dir. 80/68 Biodegradable Waste Prohibited Waste Poisonous, Noxious, Polluting Wastes Pumpable Sludges (< 20% Dry Solids) Waste In Sealed Drums Waste N.O.S.	A9NE (SE)	972	4	306600 205750

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
218	Registered Landfill Sites Licence Holder: A Harris Licence Reference: 930126 Site Location: Pencoedcae Farm, Cwmlacks Slip Road, Mountain Hare, MERTHYR TYDFIL, Mid Glamorgan, CF48 4AJ Licence Easting: 306600 Licence Northing: 205750 Operator Location: As Site Address Authority: Environment Agency Wales, South East Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Record supersededSuperseded Dated: 1st February 1993 Preceded By: Not Given Licence: Superseded By: 940132 Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Inert Waste	A9NE (SE)	972	4	306600 205750

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Pennine Lower Coal Measures Formation And South Wales Lower Coal Measures Formation (Undifferentiated)	A13NE (W)	0	1	305758 206280
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13NE (W)	0	1	305758 206280
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 25 - 35 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A12NE (W)	440	1	305294 206286
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A18SW (N)	596	1	305620 206878
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A14SW (E)	617	1	306398 206241
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 35 - 45 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A17SE (NW)	630	1	305294 206739
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A14SW (SE)	647	1	306367 206000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 25 - 35 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A17SE (NW)	745	1	305205 206813
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A8SE (S)	777	1	306022 205529
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A7NE (SW)	807	1	305086 205807
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 35 - 45 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A7SE (SW)	922	1	305217 205512
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A9SW (SE)	996	1	306246 205390
219	BGS Recorded Mineral Sites Site Name: Pantyffyn Level Location: Thomas Town, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 235645 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13SW (SW)	0	1	305751 206266

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
220	BGS Recorded Mineral Sites Site Name: Garw Pit Location: Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90896 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A13NE (N)	54	1	305779 206349
221	BGS Recorded Mineral Sites Site Name: Pant-Y-Ffyn Coal Level Location: Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90899 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13NE (E)	61	1	305839 206298
222	BGS Recorded Mineral Sites Site Name: Lodge Pit Location: Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90897 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A13NE (N)	261	1	305805 206555
223	BGS Recorded Mineral Sites Site Name: Thomas Town Location: Thomas Town, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 9029 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A12SE (W)	360	1	305375 206265
224	BGS Recorded Mineral Sites Site Name: Pen-Yard Ironstone Workings Location: Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90898 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A18SE (N)	387	1	305885 206665
225	BGS Recorded Mineral Sites Site Name: Pant-Y-Ffyn Location: Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 125695 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A14NW (E)	422	1	306198 206347

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
226	BGS Recorded Mineral Sites Site Name: Pen-Yr-Heol Ironstone Level Location: Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 125689 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	423	1	306044 205940
227	BGS Recorded Mineral Sites Site Name: Penrheol Ironstone Level Location: Mountain Hare, Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90879 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	424	1	306160 206470
228	BGS Recorded Mineral Sites Site Name: Penydarren Level Location: Incline Top, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 235654 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SW (N)	436	1	305668 206725
229	BGS Recorded Mineral Sites Site Name: Trebeddau Level Location: Mountain Hare, Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90895 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	472	1	305960 205833
230	BGS Recorded Mineral Sites Site Name: Pen-Yard Level Location: Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 125676 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SW (N)	490	1	305683 206782
231	BGS Recorded Mineral Sites Site Name: Coslet Pit Location: Mountain Hare, Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90878 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A14SW (E)	556	1	306315 206117

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
232	BGS Recorded Mineral Sites Site Name: Pen-Yard Level Location: Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 125679 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SW (N)	564	1	305700 206859
232	BGS Recorded Mineral Sites Site Name: Pen-Yard Pit Location: Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 125678 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SW (N)	579	1	305696 206874
232	BGS Recorded Mineral Sites Site Name: Pen-Yard Level Location: Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 125673 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SW (N)	587	1	305665 206878
233	BGS Recorded Mineral Sites Site Name: Penyrheol Air Shaft Location: Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 235646 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	566	1	306104 205807
234	BGS Recorded Mineral Sites Site Name: Trebeddau Pit Location: Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 125688 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	620	1	306034 205704
235	BGS Recorded Mineral Sites Site Name: Tan-Y-Ffold Level Location: Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90900 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	680	1	306130 206870

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
236	BGS Recorded Mineral Sites Site Name: Penydarren No. 2 Pit Location: Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90876 Type: Underground Status: Ceased Operator: Dowlais Iron Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A14NE (E)	715	1	306490 206379
236	BGS Recorded Mineral Sites Site Name: Penydarren No. 2 Pit Location: Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90876 Type: Underground Status: Ceased Operator: Dowlais Iron Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14NE (E)	715	1	306490 206379
237	BGS Recorded Mineral Sites Site Name: Trebeddau Location: Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 125690 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A8SE (SE)	725	1	306052 205597
238	BGS Recorded Mineral Sites Site Name: Incline Top Occs Location: Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 2889 Type: Opencast Status: Ceased Operator: Wimpey Construction (Uk) Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Opencast Positional Accuracy: Approximate location provided by supplier	A18NE (N)	742	1	306000 207000
239	BGS Recorded Mineral Sites Site Name: Pwll-Y-Hwyaid Location: Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 125702 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A19SE (NE)	779	1	306468 206647
240	BGS Recorded Mineral Sites Site Name: Cwm Blacks Workings Location: Pentrebach, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90894 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A8SE (S)	790	1	306035 205520

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
240	BGS Recorded Mineral Sites Site Name: Cwm Blacks Workings Location: Pentrebach, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90894 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A8SE (S)	790	1	306035 205520
241	BGS Recorded Mineral Sites Site Name: Bradley Row Location: Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 125682 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A18NE (N)	824	1	305797 207121
242	BGS Recorded Mineral Sites Site Name: Thomas Price Pit Location: Mountain Hare, Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90880 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A14SE (E)	828	1	306555 205978
243	BGS Recorded Mineral Sites Site Name: Ffos-Y-Fran Land Reclamation Scheme Location: Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 235358 Type: Opencast Status: Dormant Operator: Miller Argent (South Wales) Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Opencast Positional Accuracy: Located by supplier to within 10m	A14NE (E)	852	1	306600 206515
244	BGS Recorded Mineral Sites Site Name: Pencoedcae Level Location: Pentrebach, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90882 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	867	1	306382 205647
244	BGS Recorded Mineral Sites Site Name: Pencoedcae Level Location: Pentrebach, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90882 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	867	1	306382 205647

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
245	BGS Recorded Mineral Sites Site Name: Ffros-Y-Fran Location: Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 125709 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A9NE (SE)	879	1	306548 205843
246	BGS Recorded Mineral Sites Site Name: Penydarren No. 1 Pit Location: Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90875 Type: Underground Status: Ceased Operator: Dowlais Iron Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A14SE (E)	902	1	306673 206134
246	BGS Recorded Mineral Sites Site Name: Penydarren No. 1 Pit Location: Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90875 Type: Underground Status: Ceased Operator: Dowlais Iron Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14SE (E)	902	1	306673 206134
247	BGS Recorded Mineral Sites Site Name: Cwm Blacks Pit Location: Pentrebach, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90881 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	921	1	306170 205435
248	BGS Recorded Mineral Sites Site Name: Penydarren No. 4 Pit Location: Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90877 Type: Underground Status: Ceased Operator: Dowlais Iron Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A19SE (NE)	933	1	306634 206657
248	BGS Recorded Mineral Sites Site Name: Penydarren No. 4 Pit Location: Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 90877 Type: Underground Status: Ceased Operator: Dowlais Iron Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19SE (NE)	933	1	306634 206657

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
249	BGS Recorded Mineral Sites Site Name: Wagstaff'S Level Location: Dowlais, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 235648 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Upper Six-Feet Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14NE (E)	948	1	306727 206353
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A13NE (W)	0	6	305758 206280
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13NE (W)	0	-	305758 206280
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	1	305758 206280
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	1	305758 206280
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	1	305758 206280
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	34	1	305803 206246
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	1	305758 206280
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	1	305758 206280
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	60	1	305681 206313
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	80	1	305756 206181
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	170	1	305947 206237
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	246	1	305493 206243
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	1	305758 206280
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	1	305758 206280
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	1	305758 206280

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	1	305758 206280

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
250	Contemporary Trade Directory Entries Name: J C Plant Services Location: 30, Llwyn yr Eos Grove, Merthyr Tydfil, Mid Glamorgan, CF47 0GD Classification: Plant & Machinery Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (N)	219	-	305814 206510
251	Contemporary Trade Directory Entries Name: A M R Motors Location: Woodland Terrace, Merthyr Tydfil, Mid Glamorgan, CF47 0NL Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	255	-	305534 206131
251	Contemporary Trade Directory Entries Name: Ray Evans & Son Location: Woodland Terrace, Merthyr Tydfil, Mid Glamorgan, CF47 0NL Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	255	-	305534 206131
251	Contemporary Trade Directory Entries Name: P & L Autos Location: Rear Of Kingsley Ter, Merthyr Tydfil, Mid Glamorgan, CF47 0NR Classification: Car Body Repairs Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A13SW (SW)	270	-	305541 206094
251	Contemporary Trade Directory Entries Name: S & A Motor Services Location: Rear of Kingsley Terrace, Merthyr Tydfil, Mid Glamorgan, CF47 0NR Classification: Garage Services Status: Active Positional Accuracy: Manually positioned within the geographical locality	A13SW (SW)	271	-	305541 206093
252	Contemporary Trade Directory Entries Name: Full Cycle Recycle Location: Transfer Station, Mountain Hare, Merthyr Tydfil, Mid Glamorgan, CF47 0LH Classification: Reclaiming - Waste Products Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	339	-	306005 206017
252	Contemporary Trade Directory Entries Name: James Boulton Ltd Location: Dan-yr-Haul, Mountain Hare, Merthyr Tydfil, Mid Glamorgan, CF47 0LH Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A13SE (SE)	371	-	306055 206021
253	Contemporary Trade Directory Entries Name: T M S Location: 12, Woodland Place, Merthyr Tydfil, Mid Glamorgan, CF47 0NH Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	351	-	305464 206062
254	Contemporary Trade Directory Entries Name: Conservatory Shine Location: 2, Parfitt Terrace, Merthyr Tydfil, Mid Glamorgan, CF47 0PL Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (S)	393	-	305657 205880
255	Contemporary Trade Directory Entries Name: Planet Wales Three Good Friends Location: 85, Glasier Road, Merthyr Tydfil, Mid Glamorgan, CF47 0SR Classification: Greeting Card Publishers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	422	-	305834 205845
256	Contemporary Trade Directory Entries Name: Akwamasta Water Level - Bevan Products Location: Ty Coed, Penheolferthyr, Mountain Hare, Merthyr Tydfil, Mid Glamorgan, CF47 0LF Classification: Builders' Tools & Equipment Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (SE)	465	-	306167 206014

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
257	Contemporary Trade Directory Entries Name: Oriel Blinds & Son Ltd Location: 1, Corporation Street, Merthyr Tydfil, Mid Glamorgan, CF47 0HP Classification: Blinds, Awnings & Canopies Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (NW)	481	-	305549 206733
258	Contemporary Trade Directory Entries Name: Green Engineering Services Ltd Location: 17, Hawthorn Drive, Merthyr Tydfil, Mid Glamorgan, CF47 0LZ Classification: Engineers - General Status: Active Positional Accuracy: Automatically positioned to the address	A8NE (SE)	550	-	306038 205784
259	Contemporary Trade Directory Entries Name: A Class Cleaning Location: 78, Twynyrodyn Road, Merthyr Tydfil, Mid Glamorgan, CF47 0PT Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	585	-	305334 205855
260	Contemporary Trade Directory Entries Name: K.A.M. Cleaning Co Location: 1, Tydfil Villas, Courtland Terrace, Merthyr Tydfil, Mid Glamorgan, CF47 0DT Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (SW)	594	-	305221 205989
261	Contemporary Trade Directory Entries Name: M & B Tarmac Location: Incline Top, Merthyr Tydfil, Mid Glamorgan, CF47 0TJ Classification: Asphalt & Coated Macadam Laying Contractors Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A18SE (N)	606	-	305945 206875
262	Contemporary Trade Directory Entries Name: Spartan Tools Ltd Location: 23, Lower Thomas Street, Merthyr Tydfil, Mid Glamorgan, CF47 0BY Classification: Agricultural Machinery - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (W)	629	-	305117 206170
263	Contemporary Trade Directory Entries Name: Williams Country Supplies Ltd Location: Unit 3 Trevithick Industrial Estate, Merthyr Tydfil, Mid Glamorgan, CF47 0HX Classification: Pet Foods & Animal Feeds Status: Active Positional Accuracy: Manually positioned within the geographical locality	A17SE (NW)	667	-	305400 206866
263	Contemporary Trade Directory Entries Name: Ambassador Horse & Country Supplies Location: Unit 3 Trevithick Industrial Estate, Merthyr Tydfil, Mid Glamorgan, CF47 0HX Classification: Pet Foods & Animal Feeds Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A17SE (NW)	667	-	305400 206866
264	Contemporary Trade Directory Entries Name: Dip & Strip Location: Dan-y-Parc, Merthyr Tydfil, Mid Glamorgan, CF47 0AX Classification: Paint & Varnish Stripping Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	670	-	305164 206640
265	Contemporary Trade Directory Entries Name: Mobile Total Tune Location: 30, Trevethick Street, Merthyr Tydfil, Mid Glamorgan, CF47 0HX Classification: Car Engine Tuning & Diagnostic Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	680	-	305336 206840
266	Contemporary Trade Directory Entries Name: Bio Quest Ltd Location: 93, Trevethick Street, Merthyr Tydfil, Mid Glamorgan, CF47 0RJ Classification: Chemical Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (NW)	682	-	305474 206919
267	Contemporary Trade Directory Entries Name: Seams Sew Right Location: Unit 1, Trevethick St, Merthyr Tydfil, Mid Glamorgan, CF47 0HX Classification: Clothing & Fabrics - Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A17SE (NW)	682	-	305254 206772

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
268	Contemporary Trade Directory Entries Name: Valley Pest Control Location: 16, Taff Glen View, Merthyr Tydfil, Mid Glamorgan, CF47 0TH Classification: Pest & Vermin Control Status: Active Positional Accuracy: Automatically positioned to the address	A8NW (S)	695	-	305527 205605
269	Contemporary Trade Directory Entries Name: Tesco Petrol Filling Station Location: Tramroadside North, MERTHYR TYDFIL, Mid Glamorgan, CF47 0AL Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	715	-	305041 206117
270	Contemporary Trade Directory Entries Name: Dot Cotton'S Location: 4 Morlais Buildings, Merthyr Tydfil, CF47 8UL Classification: Laundries & Launderettes Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	718	-	305044 206485
270	Contemporary Trade Directory Entries Name: Dais Location: Flat 2, Pontmorlais, High Street, Merthyr Tydfil, CF47 8UB Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	738	-	305031 206510
270	Contemporary Trade Directory Entries Name: Pontmorlais Old Circus Location: 13 Pontmorlais, Merthyr Tydfil, Mid Glamorgan, CF47 8UB Classification: Antiques - Repairing & Restoring Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12NW (W)	750	-	305010 206480
271	Contemporary Trade Directory Entries Name: Shabby Chic Antiques Location: 6, Park Place, Merthyr Tydfil, Mid Glamorgan, CF47 0LJ Classification: Antiques - Repairing & Restoring Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	718	-	305163 206723
272	Contemporary Trade Directory Entries Name: Celtic Cleaning Ltd Location: Waterloo House, Penydarren, Merthyr Tydfil, Mid Glamorgan, CF47 0SX Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	722	-	305624 207008
272	Contemporary Trade Directory Entries Name: In-Stitches Embroidery Location: Waterloo House, Penydarren, Merthyr Tydfil, Mid Glamorgan, CF47 0SX Classification: T-Shirts Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	722	-	305624 207008
273	Contemporary Trade Directory Entries Name: Coolio Location: 45, Tramroad Terrace, Merthyr Tydfil, Mid Glamorgan, CF47 0BG Classification: Air Conditioning & Refrigeration Contractors Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	724	-	305017 206386
273	Contemporary Trade Directory Entries Name: 22 Seven Location: 94, Pontmorlais, Merthyr Tydfil, Mid Glamorgan, CF47 8UH Classification: Printers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A12NW (W)	745	-	305003 206429
274	Contemporary Trade Directory Entries Name: Eddie Thomas Location: Prospect House, Prospect Place, Merthyr Tydfil, Mid Glamorgan, CF47 0DX Classification: Coal & Smokeless Fuel Merchants & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	737	-	305247 206842
275	Contemporary Trade Directory Entries Name: Martha'S Professional Ironing Services Location: 37, Pontmorlais, Merthyr Tydfil, Mid Glamorgan, CF47 8UN Classification: Ironing & Home Laundry Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	740	-	305084 206641

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
276	Contemporary Trade Directory Entries Name: Andrew'S Commercial Vehicle Repairs Location: Unit 1, Bogey Road, Mountain Hare, Merthyr Tydfil, Mid Glamorgan, CF48 4AP Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	744	-	306425 205900
276	Contemporary Trade Directory Entries Name: Philip Price Commercial Vehicle Services Location: Unit 1, Bogey Road, Mountain Hare, Merthyr Tydfil, CF48 4AP Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Active Positional Accuracy: Automatically positioned to the address	A9NW (SE)	752	-	306432 205896
277	Contemporary Trade Directory Entries Name: Dw Railway Location: 31, Trevithick Gardens, Merthyr Tydfil, Mid Glamorgan, CF47 0RP Classification: Railways Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	749	-	305171 205791
278	Contemporary Trade Directory Entries Name: Shell (Uk) Ltd Location: High Street, Penydarren, Merthyr Tydfil, Mid Glamorgan, CF47 9HA Classification: Petrol Filling Stations - 24 Hour Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	778	-	305574 207054
279	Contemporary Trade Directory Entries Name: Vitassist Ltd Location: 1, JOHN STREET, MERTHYR TYDFIL, CF47 0AE Classification: Disability Equipment - Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	779	-	304964 206171
280	Contemporary Trade Directory Entries Name: Merthr Tack Location: 6, Garth Villas, Merthyr Tydfil, Mid Glamorgan, CF47 0RX Classification: Pet Foods & Animal Feeds Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	786	-	305247 206905
281	Contemporary Trade Directory Entries Name: D H M Services Location: Old Drill Hall, Pontmorlais West, Merthyr Tydfil, Mid Glamorgan, CF47 8UT Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	791	-	304963 206459
281	Contemporary Trade Directory Entries Name: Motofix Location: OLD DRILL HALL, PONTMORLAIS WEST, MERTHYR TYDFIL, CF47 8UT Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	816	-	304946 206498
282	Contemporary Trade Directory Entries Name: The Fragrance Shop Location: Unit 7, Beacons Place Shopping Centre, Merthyr Tydfil, CF47 8DF Classification: Perfume Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	800	-	304958 206095
282	Contemporary Trade Directory Entries Name: Currys Location: 50, High Street, Merthyr Tydfil, Mid Glamorgan, CF47 8DE Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	815	-	304950 206070
283	Contemporary Trade Directory Entries Name: Scotts Autotrade Location: 21, Plymouth Street, Merthyr Tydfil, Mid Glamorgan, CF47 0TT Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	828	-	305302 205568

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
284	Contemporary Trade Directory Entries Name: Brighthouse Location: 126, High Street, Merthyr Tydfil, CF47 8BT Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	829	-	304923 206119
284	Contemporary Trade Directory Entries Name: R Hooper Location: 29, Market Square, Merthyr Tydfil, Mid Glamorgan, CF47 8DA Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	876	-	304876 206115
284	Contemporary Trade Directory Entries Name: Stagecoach (South Wales) Location: 6, Victoria Street, Merthyr Tydfil, Mid Glamorgan, CF47 8ED Classification: Bus & Coach Operators & Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	876	-	304876 206115
284	Contemporary Trade Directory Entries Name: Stagecoach Location: 6, Victoria Street, Merthyr Tydfil, Mid Glamorgan, CF47 8ED Classification: Bus & Coach Operators & Stations Status: Active Positional Accuracy: Automatically positioned to the address	A12SW (W)	876	-	304876 206115
284	Contemporary Trade Directory Entries Name: Cosmetics4u Location: 17, New Market Walk, St. Tydfil Square Shopping Centre, Merthyr Tydfil, Mid Glamorgan, CF47 8EL Classification: Cosmetic Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	920	-	304836 206090
285	Contemporary Trade Directory Entries Name: Hillarys Blinds Ltd Location: Castle Yard, Merthyr Tydfil, Mid Glamorgan, CF47 8JD Classification: Blinds, Awnings & Canopies Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	838	-	304903 206394
286	Contemporary Trade Directory Entries Name: Welsh Country Foods Location: 50, Glebeland Street, Merthyr Tydfil, Mid Glamorgan, CF47 8AT Classification: Meat - Wholesale Status: Active Positional Accuracy: Automatically positioned to the address	A12SW (W)	844	-	304892 206238
286	Contemporary Trade Directory Entries Name: Merthyr Dry Cleaners Location: 13, Glebeland Street, Merthyr Tydfil, Mid Glamorgan, CF47 8AU Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	875	-	304862 206224
287	Contemporary Trade Directory Entries Name: Twyn Launderette Location: Glasier rd, Merthyr Tydfil, Mid Glamorgan, CF47 0TD Classification: Dry Cleaners Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A8SW (S)	851	-	305540 205438
288	Contemporary Trade Directory Entries Name: Homestyle By Fads Location: 1, Court Street, Merthyr Tydfil, Mid Glamorgan, CF47 8DU Classification: Wallpapers & Wall Coverings Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	856	-	305035 205795
288	Contemporary Trade Directory Entries Name: The Electronic Cigarette Shop Location: 19, Lower High Street, Merthyr Tydfil, CF47 8EB Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	869	-	305020 205794

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
288	Contemporary Trade Directory Entries Name: Ruggers Location: 19, Lower High Street, Merthyr Tydfil, CF47 8EB Classification: Carpets & Rugs - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	869	-	305020 205794
289	Contemporary Trade Directory Entries Name: Mydentist Smiles Dental Glamorgan Location: 29, HIGH STREET, MERTHYR TYDFIL, CF47 8DP Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	864	-	304953 205919
290	Contemporary Trade Directory Entries Name: Petrol Gas Location: 3a, Lower High Street, Merthyr Tydfil, Mid Glamorgan, CF47 8EB Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	870	-	305065 205729
290	Contemporary Trade Directory Entries Name: Apple Green Petrol Gas Location: 3a, Lower High Street, Merthyr Tydfil, Mid Glamorgan, CF47 8EB Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (SW)	870	-	305065 205729
290	Contemporary Trade Directory Entries Name: Texaco Location: 3, Lower High Street, Merthyr Tydfil, CF47 8EB Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	885	-	305059 205714
290	Contemporary Trade Directory Entries Name: Car Care Location: 3 Yew Street, Merthyr Tydfil, Mid Glamorgan, CF47 8EB Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (SW)	885	-	305059 205714
290	Contemporary Trade Directory Entries Name: Merthyr Motor Co Location: Lower High Street, Merthyr Tydfil, Mid Glamorgan, CF47 8EB Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	892	-	305046 205719
290	Contemporary Trade Directory Entries Name: Co-Operative Food Location: Merthyr Tydfil, Mid Glamorgan, Cf47 8eb Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A7NW (SW)	897	-	305027 205734
290	Contemporary Trade Directory Entries Name: Simon Jones Cars Ltd Location: CAR SALES OFFICE & PREMISES, LOWER HIGH STREET, MERTHYR TYDFIL, CF47 8EB Classification: Car Dealers - Used Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (SW)	918	-	305046 205676
291	Contemporary Trade Directory Entries Name: Jks Blinds Location: River Walk, Merthyr Tydfil, Mid Glamorgan, CF47 8EN Classification: Blinds, Awnings & Canopies Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12SW (W)	873	-	304896 206044
291	Contemporary Trade Directory Entries Name: T & I Protheroe Location: 17 Graham Way, Merthyr Tydfil, Mid Glamorgan, CF47 8EG Classification: Hardware Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12SW (W)	914	-	304850 206058

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
292	Contemporary Trade Directory Entries Name: Qwik Print Location: 139, High Street, Merthyr Tydfil, Mid Glamorgan, CF47 8DN Classification: Printers Textile Status: Inactive Positional Accuracy: Manually positioned to the address or location	A12SW (W)	874	-	304918 205976
293	Contemporary Trade Directory Entries Name: Rheidol Services Ltd Location: Unit 4-5, Plymouth Court, Warlow Street, Merthyr Tydfil, Mid Glamorgan, CF47 0YS Classification: Electrical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	875	-	305190 205592
293	Contemporary Trade Directory Entries Name: Advanced Engineering Services (Wales) Ltd Location: Unit 4-5, Plymouth Court, Warlow Street, Merthyr Tydfil, Mid Glamorgan, CF47 0YS Classification: Tool Design, Manufacturers & Makers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	875	-	305190 205592
293	Contemporary Trade Directory Entries Name: Ecas Systems Ltd Location: The Arches Plymouth Court, Merthyr Tydfil, Mid Glamorgan, CF47 0YS Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A7SE (SW)	888	-	305191 205575
293	Contemporary Trade Directory Entries Name: Read Industrial Doors Ltd Location: Unit 7-8, Plymouth Court, Warlow Street, Merthyr Tydfil, Mid Glamorgan, CF47 0YS Classification: Door Manufacturers - Industrial Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	895	-	305191 205565
293	Contemporary Trade Directory Entries Name: Read Industrial Doors Location: Unit 7-8, Plymouth Court, Warlow Street, Merthyr Tydfil, Mid Glamorgan, CF47 0YS Classification: Door Manufacturers - Industrial Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	895	-	305191 205565
294	Contemporary Trade Directory Entries Name: Jocks Joinery Location: Warlow St, Merthyr Tydfil, Mid Glamorgan, CF47 0YW Classification: Joinery Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7SE (SW)	883	-	305247 205538
295	Contemporary Trade Directory Entries Name: Russell Roberts Auto Repairs Location: Ernest St, Merthyr Tydfil, Mid Glamorgan, CF47 0YP Classification: Garage Services Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A7SE (SW)	920	-	305256 205488
296	Contemporary Trade Directory Entries Name: Forget Me Not Furniture Location: 110, Brecon Road, Merthyr Tydfil, Mid Glamorgan, CF47 8NG Classification: Furniture - Reproduction Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	949	-	304831 206580
297	Contemporary Trade Directory Entries Name: Steves Domestics Ltd Location: 5, TALBOT SQUARE, PENYDARREN, MERTHYR TYDFIL, CF47 9LP Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Active Positional Accuracy: Automatically positioned to the address	A18NW (N)	970	-	305600 207255
298	Contemporary Trade Directory Entries Name: S A S Location: 28a, Ernest Street, Merthyr Tydfil, Mid Glamorgan, CF47 0YP Classification: Car Breakers & Dismantlers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	987	-	305329 205371

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
299	Fuel Station Entries Name: Star Penydarren Location: High Street , Penydarren , Merthyr Tydfil, Merthyr Tydfil, CF47 9HA Brand: Obsolete Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Automatically positioned to the address	A18NW (N)	778	-	305574 207054
300	Fuel Station Entries Name: Applegreen Merthyr Tydfil Location: 3-3a, Lower High Street , , Merthyr Tydfil, Merthyr Tydfil, CF47 8EB Brand: Applegreen Premises Type: Petrol Station Status: Open Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	867	-	305098 205694
301	Points of Interest - Commercial Services Name: S & A Motor Services Location: Rear of Kingsley Terrace, Merthyr Tydfil, CF47 0NR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (SW)	286	7	305505 206117
302	Points of Interest - Commercial Services Name: Williams Harry Haulage Contractor Location: Maesycynon, Queens Road, Merthyr Tydfil, CF47 0NE Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A8NW (SW)	453	7	305507 205882
303	Points of Interest - Commercial Services Name: A1 Autovalet Location: 3 Court Terrace, Merthyr Tydfil, CF47 0SH Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A7NE (SW)	656	7	305212 205892
303	Points of Interest - Commercial Services Name: A1 Autovalet Location: 3 Court Terrace, Merthyr Tydfil, CF47 0SH Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A7NE (SW)	656	7	305212 205892
304	Points of Interest - Commercial Services Name: Mason Soft Drinks Location: Dan-y-Parc, Merthyr Tydfil, CF47 0AX Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A17SE (NW)	670	7	305164 206640
304	Points of Interest - Commercial Services Name: S & P Mason Ltd Location: Old Radio Rentals Building, Dan-y-Parc, Merthyr Tydfil, CF47 0AX Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A17SE (NW)	670	7	305164 206640
305	Points of Interest - Commercial Services Name: Valley Pest Control Location: 16 Taff Glen View, Twynnyrodyn, Merthyr Tydfil, CF47 0TH Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A8NW (S)	695	7	305526 205605
305	Points of Interest - Commercial Services Name: Valley Pest Control Location: 16 Taff Glen View, Merthyr Tydfil, CF47 0TH Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A8NW (S)	695	7	305527 205605
306	Points of Interest - Commercial Services Name: Marsh M X Location: 20 Pontmorlais, Merthyr Tydfil, CF47 8UB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	741	7	305039 206542

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
307	Points of Interest - Commercial Services Name: Philip Price Commercial Vehicle Services Location: Unit 1, Bogey Road, Mountain Hare, Merthyr Tydfil, CF48 4AP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	752	7	306432 205896
308	Points of Interest - Commercial Services Name: D H M Services Location: Old Drill Hall, Pontmorlais West, Merthyr Tydfil, CF47 8UT Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	791	7	304963 206459
308	Points of Interest - Commercial Services Name: D H M Services Location: Old Drill Hall, Pontmorlais West, Merthyr Tydfil, CF47 8UT Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	791	7	304962 206458
308	Points of Interest - Commercial Services Name: Motofix Location: Old Drill Hall, Pontmorlais West, Merthyr Tydfil, CF47 8UT Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	816	7	304946 206498
309	Points of Interest - Commercial Services Name: Applegreen Merthyr Tydfil Location: 3a Lower High Street, Merthyr Tydfil, CF47 8EB Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A7NE (SW)	867	7	305098 205694
309	Points of Interest - Commercial Services Name: Car Wash Location: 3a Lower High Street, Merthyr Tydfil, CF47 8EB Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A7NW (SW)	870	7	305065 205729
309	Points of Interest - Commercial Services Name: Car Care Location: 3a Lower High Street, Merthyr Tydfil, CF47 8EB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NW (SW)	886	7	305058 205713
310	Points of Interest - Commercial Services Name: Russell Roberts Auto Repairs Location: Ernest Street, Merthyr Tydfil, CF47 0YP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7SE (SW)	876	7	305224 205564
311	Points of Interest - Commercial Services Name: Forget Me Not Location: 110 Brecon Road, Merthyr Tydfil, CF47 8NG Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A12NW (W)	949	7	304831 206580
312	Points of Interest - Education and Health Name: Mardy Hospital Location: St. Tydfils Hospital, Merthyr Tydfil, CF47 0SJ Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A12NE (W)	569	7	305168 206342
312	Points of Interest - Education and Health Name: St Tydfils Hospital Location: St. Tydfils Hospital, Merthyr Tydfil, CF47 0SJ Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A12NE (W)	569	7	305168 206342
312	Points of Interest - Education and Health Name: St Tydfils Hospital Location: St. Tydfils Hospital, Merthyr Tydfil, CF47 0SJ Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A12NE (W)	569	7	305168 206342

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
312	Points of Interest - Education and Health Name: St. Tydfils General Hospital Location: St. Tydfils Hospital, Merthyr Tydfil, CF47 0SJ Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A12NE (W)	569	7	305168 206342
313	Points of Interest - Manufacturing and Production Name: Shaft (Disused) Location: CF47 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A13NE (N)	50	7	305782 206343
313	Points of Interest - Manufacturing and Production Name: Shaft (Disused) Location: CF47 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A13NE (N)	58	7	305783 206352
314	Points of Interest - Manufacturing and Production Name: Tank Location: CF47 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12NE (W)	538	7	305225 206462
315	Points of Interest - Manufacturing and Production Name: Shaft (Disused) Location: CF47 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	693	7	306225 206815
315	Points of Interest - Manufacturing and Production Name: Shaft (Disused) Location: CF47 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A19SW (NE)	696	7	306224 206820
316	Points of Interest - Manufacturing and Production Name: Tydfil Training Location: William Smith Building 106-109, High Street, Merthyr Tydfil, CF47 8AP Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to address or location	A12NW (W)	798	7	304937 206283
317	Points of Interest - Manufacturing and Production Name: Works Location: CF47 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	813	7	305059 205836
318	Points of Interest - Public Infrastructure Name: James Boulton Ltd Location: Dan-yr-Haul, Mountain Hare, Merthyr Tydfil, CF47 0LH Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A13SE (SE)	371	7	306055 206021
319	Points of Interest - Public Infrastructure Name: Old Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	511	7	305380 205913
319	Points of Interest - Public Infrastructure Name: Old Cemetery Location: CF47 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	519	7	305370 205912
320	Points of Interest - Public Infrastructure Name: Refuse Tip (Disused) Location: CF48 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	648	7	306426 206344

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
321	Points of Interest - Public Infrastructure Name: Old Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A12NE (W)	666	7	305086 206439
321	Points of Interest - Public Infrastructure Name: Old Cemetery Location: CF47 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	674	7	305077 206438
322	Points of Interest - Public Infrastructure Name: Sewage Pumping Station Location: CF47 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8NE (S)	682	7	306022 205631
323	Points of Interest - Public Infrastructure Name: Landfill Site Location: CF48 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	687	7	306317 205843
324	Points of Interest - Public Infrastructure Name: Refuse Tip (Disused) Location: CF48 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	696	7	306464 206136
325	Points of Interest - Public Infrastructure Name: Tesco Petrol Filling Station Location: Tramroadside North, Merthyr Tydfil, CF47 0AL Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A12SW (W)	715	7	305041 206117
326	Points of Interest - Public Infrastructure Name: Merthyr Tydfil Rail Station Location: CF47 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A12SW (W)	786	7	305005 205997
326	Points of Interest - Public Infrastructure Name: Merthyr Tydfil Station Location: Masonic Street, CF47 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A12SW (W)	786	7	305005 205997
327	Points of Interest - Public Infrastructure Name: Refuse Tips (Disused) Location: CF48 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	798	7	306493 206640
328	Points of Interest - Public Infrastructure Name: Refuse Tips (Disused) Location: CF48 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	848	7	306626 206189
329	Points of Interest - Public Infrastructure Name: Texaco Location: 3 Lower High Street, Merthyr Tydfil, CF47 8EB Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A7NE (SW)	867	7	305098 205694
329	Points of Interest - Public Infrastructure Name: Apple Green Petrol Gas Location: 3 Lower High Street, Merthyr Tydfil, CF47 8EB Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A7NE (SW)	867	7	305098 205694

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
329	Points of Interest - Public Infrastructure Name: Petrol Gas Location: 3a Lower High Street, Merthyr Tydfil, CF47 8EB Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A7NW (SW)	870	7	305065 205729
329	Points of Interest - Public Infrastructure Name: Somerfield Merthyr Tydfil 3389-4 Location: 3a Lower High Street, Merthyr Tydfil, CF47 8EB Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A7NW (SW)	870	7	305065 205729
329	Points of Interest - Public Infrastructure Name: Co-Op Merthyr Tydfil Location: 3a Lower High Street, Merthyr Tydfil, CF47 8EB Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A7NW (SW)	870	7	305065 205729
330	Points of Interest - Public Infrastructure Name: Weir Location: CF47 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	872	7	304877 206446
330	Points of Interest - Public Infrastructure Name: Weir Location: CF47 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	874	7	304875 206446
331	Points of Interest - Public Infrastructure Name: Stagecoach (South Wales) Location: 6 Victoria Street, Merthyr Tydfil, CF47 8ED Category: Public Transport, Stations and Infrastructure Class Code: Bus and Coach Stations, Depots and Companies Positional Accuracy: Positioned to address or location	A12SW (W)	876	7	304876 206115
331	Points of Interest - Public Infrastructure Name: Stagecoach Location: 6 Victoria Street, Merthyr Tydfil, CF47 8ED Category: Public Transport, Stations and Infrastructure Class Code: Bus and Coach Stations, Depots and Companies Positional Accuracy: Positioned to address or location	A12SW (W)	893	7	304858 206120
331	Points of Interest - Public Infrastructure Name: Bus Station Location: CF47 Category: Public Transport, Stations and Infrastructure Class Code: Bus and Coach Stations, Depots and Companies Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	934	7	304810 206159
331	Points of Interest - Public Infrastructure Name: Merthyr Tydfil Police Station Location: Police Station, Swan Street, Merthyr Tydfil, CF47 8ES Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A12SW (W)	940	7	304843 205990
331	Points of Interest - Public Infrastructure Name: Merthyr Tydfil Police Station Location: Police Station, Swan Street, Merthyr Tydfil, CF47 8ES Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A12SW (W)	940	7	304843 205990
331	Points of Interest - Public Infrastructure Name: Merthyr Police Station Location: Police Station, Swan Street, Merthyr Tydfil, CF47 8ES Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A12SW (W)	940	7	304843 205990
331	Points of Interest - Public Infrastructure Name: Tesco Petrol Filling Station Location: 1 New Market Walk, St. Tydfil Square Shopping Centre, Merthyr Tydfil, CF47 8EL Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A12SW (W)	954	7	304808 206063

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
331	Points of Interest - Public Infrastructure Name: Bus Station Location: CF47 Category: Public Transport, Stations and Infrastructure Class Code: Bus and Coach Stations, Depots and Companies Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	968	7	304823 205963
332	Points of Interest - Public Infrastructure Name: Refuse Tip (Disused) Location: CF48 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	887	7	306617 205977
333	Points of Interest - Public Infrastructure Name: Spoil Heap Location: CF48 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	919	7	306686 206439
334	Points of Interest - Public Infrastructure Name: Forget Me Not Location: 110 Brecon Road, Merthyr Tydfil, CF47 8NG Category: Infrastructure and Facilities Class Code: Recycling Centres Positional Accuracy: Positioned to address or location	A12NW (W)	949	7	304831 206580
335	Points of Interest - Public Infrastructure Name: Spoil Heap Location: CF48 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	952	7	306675 206606
336	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13SW (W)	311	7	305424 206268
336	Points of Interest - Recreational and Environmental Name: Playground Location: Summerhill Place, CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	319	7	305416 206267
337	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	357	7	305594 206617
337	Points of Interest - Recreational and Environmental Name: Play Area Location: CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	373	7	305610 206641
338	Points of Interest - Recreational and Environmental Name: Play Area Location: CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8NE (SE)	414	7	305950 205892
338	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8NE (SE)	425	7	305939 205875
339	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	479	7	305413 205925

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
339	Points of Interest - Recreational and Environmental Name: Playground Location: (Gilfach-Cynon), CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A7NE (SW)	479	7	305414 205924
340	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A17SE (NW)	730	7	305331 206897
340	Points of Interest - Recreational and Environmental Name: Playground Location: High Street, CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A17SE (NW)	730	7	305326 206894
341	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	819	7	305334 205559
342	Points of Interest - Recreational and Environmental Name: Playground Location: Tramroad Lane, CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A17NE (NW)	876	7	305394 207096
343	Points of Interest - Recreational and Environmental Name: Play Area Location: CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	880	7	305538 205408
343	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	923	7	305591 205353
343	Points of Interest - Recreational and Environmental Name: Playground Location: Nr Glasier Road, CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	926	7	305581 205352

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
344	Ancient Woodland Name: Not Supplied Reference: 22397 Area(m ²): 18406.77 Type: Restored Ancient Woodland Site	A9NW (SE)	718	2	306255 205733
345	Ancient Woodland Name: Not Supplied Reference: 16790 Area(m ²): 2836.92 Type: Ancient and Semi-Natural Woodland	A9NE (SE)	852	2	306465 205764

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Natural Resources Wales Powys County Council - Public Protection Department Rhondda Cynon Taff County Borough Council - Environmental Services Caerphilly County Borough Council - Environmental Health Department Merthyr Tydfil County Borough Council - Environmental Health Department	November 2023 October 2017 October 2017 September 2017 September 2017	Annually Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 December 2023	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	
Integrated Pollution Controls Environment Agency - Welsh Region	January 2009	
Integrated Pollution Prevention And Control Natural Resources Wales Environment Agency - Welsh Region	December 2023 January 2021	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Powys County Council - Public Protection Department Caerphilly County Borough Council - Environmental Health Department Rhondda Cynon Taff County Borough Council - Public Health and Protection Division Merthyr Tydfil County Borough Council - Environmental Health Department	May 2014 September 2014 September 2014 September 2016	Variable Variable Variable Variable
Local Authority Pollution Prevention and Controls Rhondda Cynon Taff County Borough Council - Public Health and Protection Division Powys County Council - Public Protection Department Caerphilly County Borough Council - Environmental Health Department Merthyr Tydfil County Borough Council - Environmental Health Department	December 2020 May 2014 September 2014 September 2016	Annual Rolling Update Annual Rolling Update Not Applicable Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Rhondda Cynon Taff County Borough Council - Public Health and Protection Division Powys County Council - Public Protection Department Caerphilly County Borough Council - Environmental Health Department Merthyr Tydfil County Borough Council - Environmental Health Department	December 2020 May 2014 September 2014 September 2016	Variable Variable Variable Variable
Nearest Surface Water Feature Ordnance Survey	November 2023	
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	
Prosecutions Relating to Authorised Processes Environment Agency - Welsh Region Natural Resources Wales	July 2015 July 2015	
Prosecutions Relating to Controlled Waters Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013	
Registered Radioactive Substances Natural Resources Wales Environment Agency - Welsh Region	January 2015 June 2016	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	April 2012	
River Quality Chemistry Sampling Points Environment Agency - Head Office	April 2012	
Substantiated Pollution Incident Register Natural Resources Wales Environment Agency Wales - South East Area	August 2023 January 2021	Quarterly Quarterly

Agency & Hydrological	Version	Update Cycle
Water Abstractions Natural Resources Wales Environment Agency - Welsh Region	June 2023 October 2023	Quarterly Quarterly
Water Industry Act Referrals Environment Agency - Welsh Region Natural Resources Wales	October 2017 October 2022	
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations Natural Resources Wales	January 2018	As notified
Superficial Aquifer Designations Natural Resources Wales	January 2018	As notified
Source Protection Zones Natural Resources Wales	July 2022	Annual Rolling Update
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Areas Benefiting from Flood Defences Natural Resources Wales	November 2019	Quarterly
Flood Water Storage Areas Natural Resources Wales	August 2019	Quarterly
Flood Defences Natural Resources Wales	November 2019	Quarterly
OS Water Network Lines Ordnance Survey	October 2023	Quarterly
Surface Water 1 in 30 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water Suitability Natural Resources Wales	February 2016	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites Natural Resources Wales	March 2023	As notified
Integrated Pollution Control Registered Waste Sites Environment Agency - Welsh Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency Wales - South East Area Natural Resources Wales	January 2023 October 2021	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Natural Resources Wales Environment Agency Wales - South East Area	December 2023 July 2021	Quarterly Quarterly
Local Authority Landfill Coverage Caerphilly County Borough Council - Environmental Health Department Merthyr Tydfil County Borough Council - Environmental Health Department Powys County Council Rhondda Cynon Taff County Borough Council	February 2003 February 2003 February 2003 February 2003	Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Caerphilly County Borough Council - Environmental Health Department Merthyr Tydfil County Borough Council - Environmental Health Department Powys County Council Rhondda Cynon Taff County Borough Council	October 2018 October 2018 October 2018 October 2018	
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	
Registered Landfill Sites Environment Agency Wales - South East Area	March 2006	Not Applicable
Registered Waste Transfer Sites Environment Agency Wales - South East Area	April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency Wales - South East Area	June 2015	
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	March 2023	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements Brecon Beacons National Park Rhondda Cynon Taff County Borough Council - Planning Department Caerphilly County Borough Council - Planning Department Merthyr Tydfil County Borough Council - Planning Department Powys County Council - Planning Department	August 2008 February 2016 January 2023 January 2023 May 2023	Annual Rolling Update Variable Variable Variable Variable
Planning Hazardous Substance Consents Brecon Beacons National Park Powys County Council - Planning Department Rhondda Cynon Taff County Borough Council - Planning Department Caerphilly County Borough Council - Planning Department Merthyr Tydfil County Borough Council - Planning Department	August 2008 February 2016 February 2016 January 2023 January 2023	Annual Rolling Update Variable Variable Variable Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	June 2023	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	October 2023	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	October 2023	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	October 2023	Quarterly
Fuel Station Entries Catalist Ltd - Experian	November 2023	Quarterly
Gas Pipelines National Grid	October 2021	Bi-Annually
Points of Interest - Commercial Services PointX	December 2023	Quarterly
Points of Interest - Education and Health PointX	December 2023	Quarterly
Points of Interest - Manufacturing and Production PointX	December 2023	Quarterly
Points of Interest - Public Infrastructure PointX	December 2023	Quarterly
Points of Interest - Recreational and Environmental PointX	December 2023	Quarterly
Underground Electrical Cables National Grid	February 2023	Bi-Annually

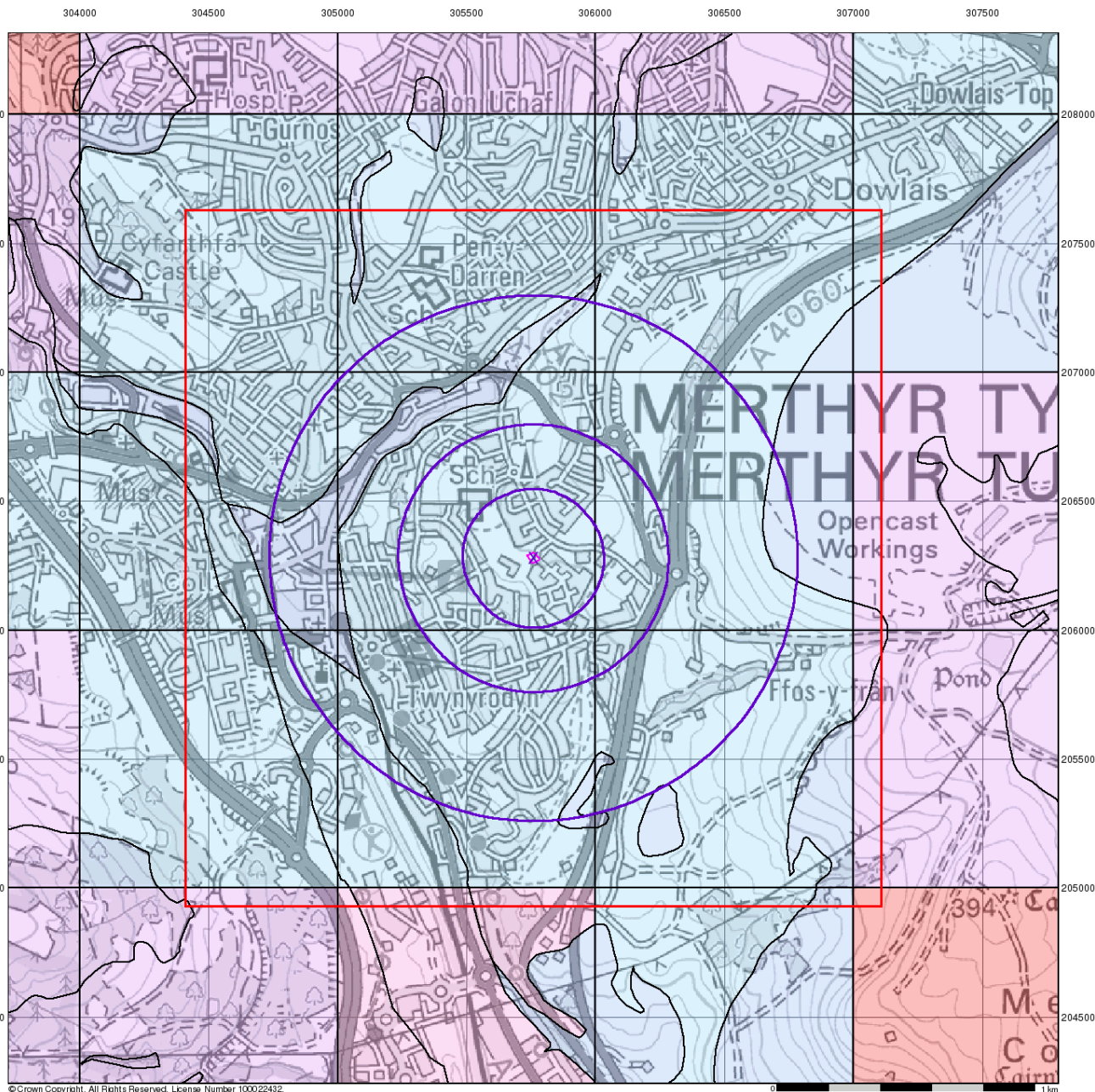
Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	October 2023	Bi-Annually
Areas of Adopted Green Belt Brecon Beacons National Park Caerphilly County Borough Council Merthyr Tydfil County Borough Council Powys County Council Rhondda Cynon Taff County Borough Council	August 2023 August 2023 August 2023 August 2023 August 2023	Quarterly Quarterly Quarterly Quarterly Quarterly
Areas of Unadopted Green Belt Brecon Beacons National Park Caerphilly County Borough Council Merthyr Tydfil County Borough Council Powys County Council Rhondda Cynon Taff County Borough Council	August 2023 August 2023 August 2023 August 2023 August 2023	Quarterly Quarterly Quarterly Quarterly Quarterly
Areas of Outstanding Natural Beauty Natural Resources Wales	November 2023	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	
Forest Parks Forestry Commission	May 2023	Not Applicable
Local Nature Reserves Caerphilly County Borough Council Merthyr Tydfil County Borough Council Powys County Council Rhondda Cynon Taff County Borough Council	August 2023 August 2023 August 2023 August 2023	Bi-Annually Bi-Annually Bi-Annually Bi-Annually
Marine Nature Reserves Natural Resources Wales	October 2023	Bi-Annually
National Nature Reserves Natural Resources Wales	September 2023	Bi-Annually
National Parks Natural Resources Wales	February 2018	Annually
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside) Natural Resources Wales	April 2016 March 2023	Bi-Annually
Ramsar Sites Natural Resources Wales	October 2023	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	October 2023	Bi-Annually
Special Areas of Conservation Natural Resources Wales	October 2023	Bi-Annually
Special Protection Areas Natural Resources Wales	October 2023	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Merthyr Tydfil County Borough Council - Environmental Health Department Civic Centre, Castle Street, Merthyr Tydfil, Mid Glamorgan, CF47 8AN	Telephone: 01685 725000 Fax: 01685 725024 Website: www.merthyr.gov.uk
4	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
7	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
8	Merthyr Tydfil County Borough Council Civic Centre, Castle Street, Merthyr Tydfil, Mid Glamorgan, CF47 8AN	Telephone: 01685 725000 Fax: 01685 722146 Website: www.merthyr.gov.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.



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Groundwater Vulnerability

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Bedrock Aquifers

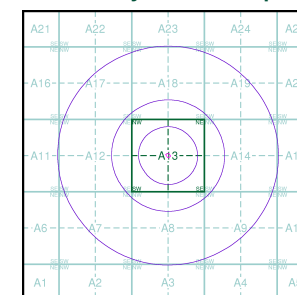
- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

Superficial Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

- Unproductive Aquifer
- Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

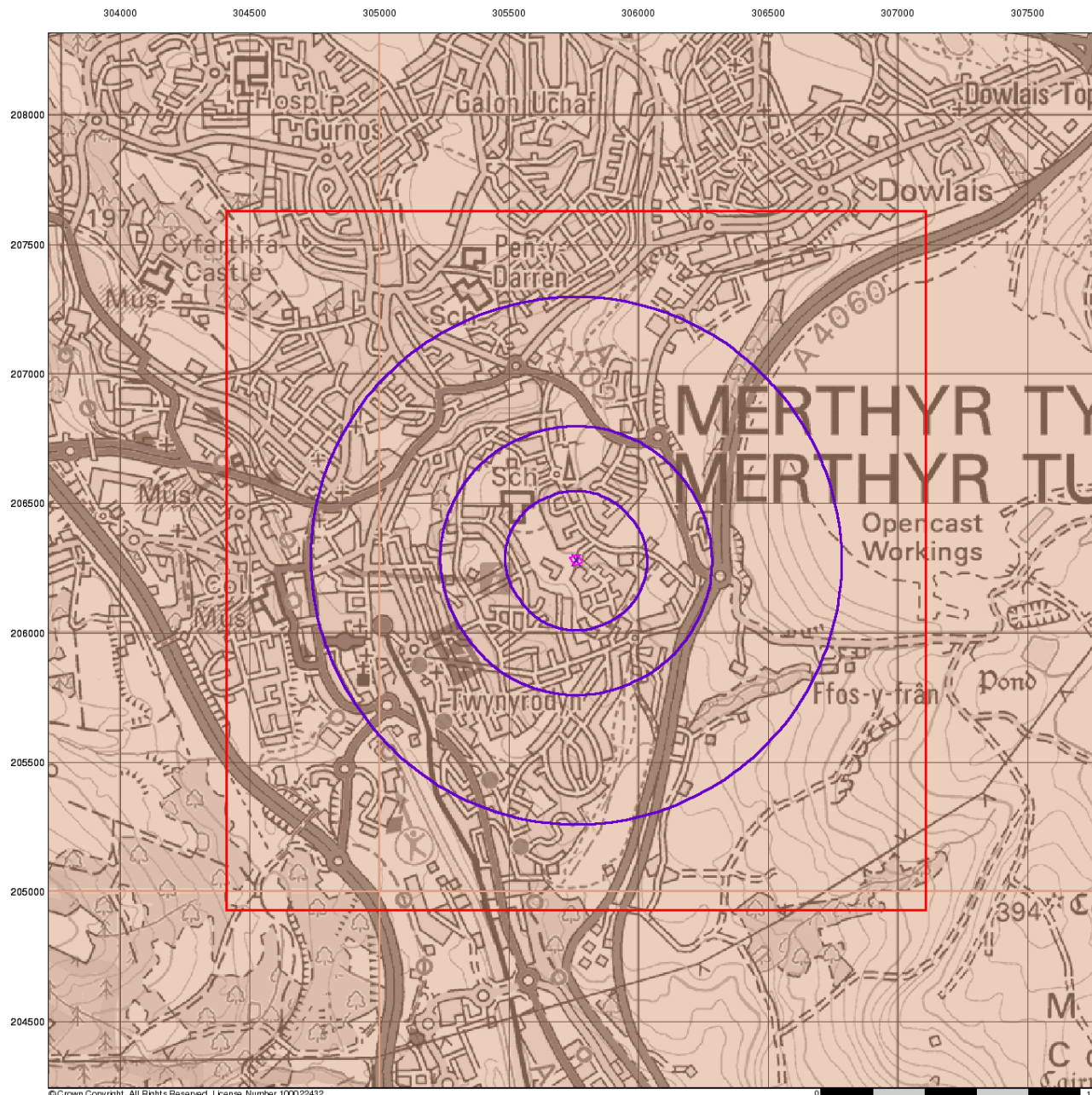
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Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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Bedrock Aquifer Designation

General

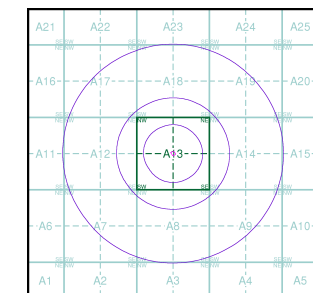
-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point
-  Slice
-  Map ID

Agency and Hydrological

Geological Classes

-  Principal Aquifer
-  Secondary A Aquifer
-  Secondary B Aquifer
-  Secondary Undifferentiated
-  Unproductive Strata
-  Unknown
-  Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

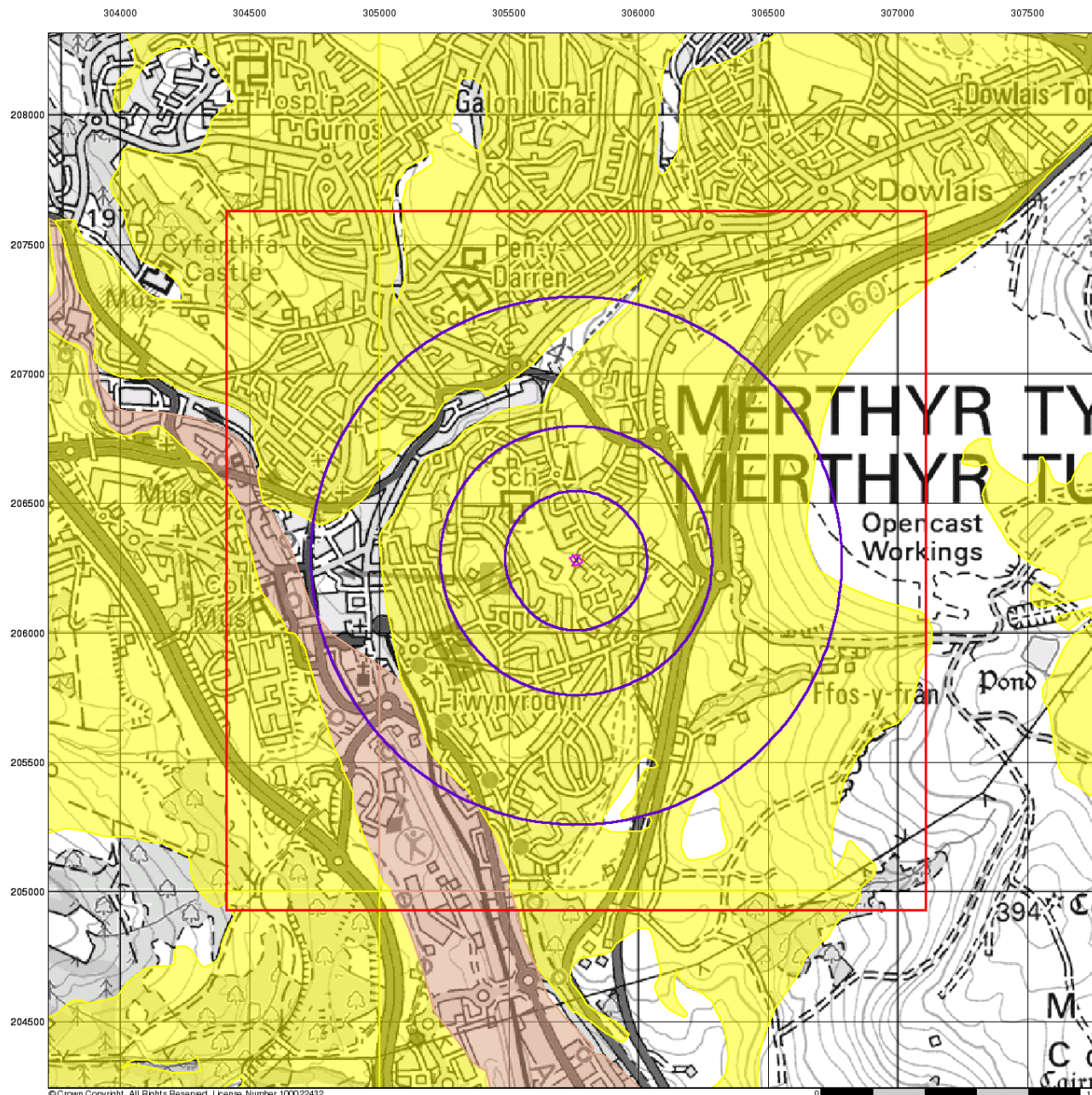
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Site Details

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Superficial Aquifer Designation

General

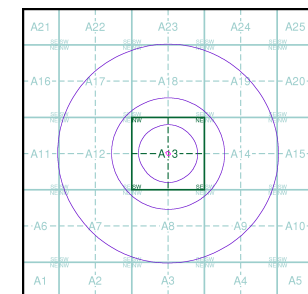
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

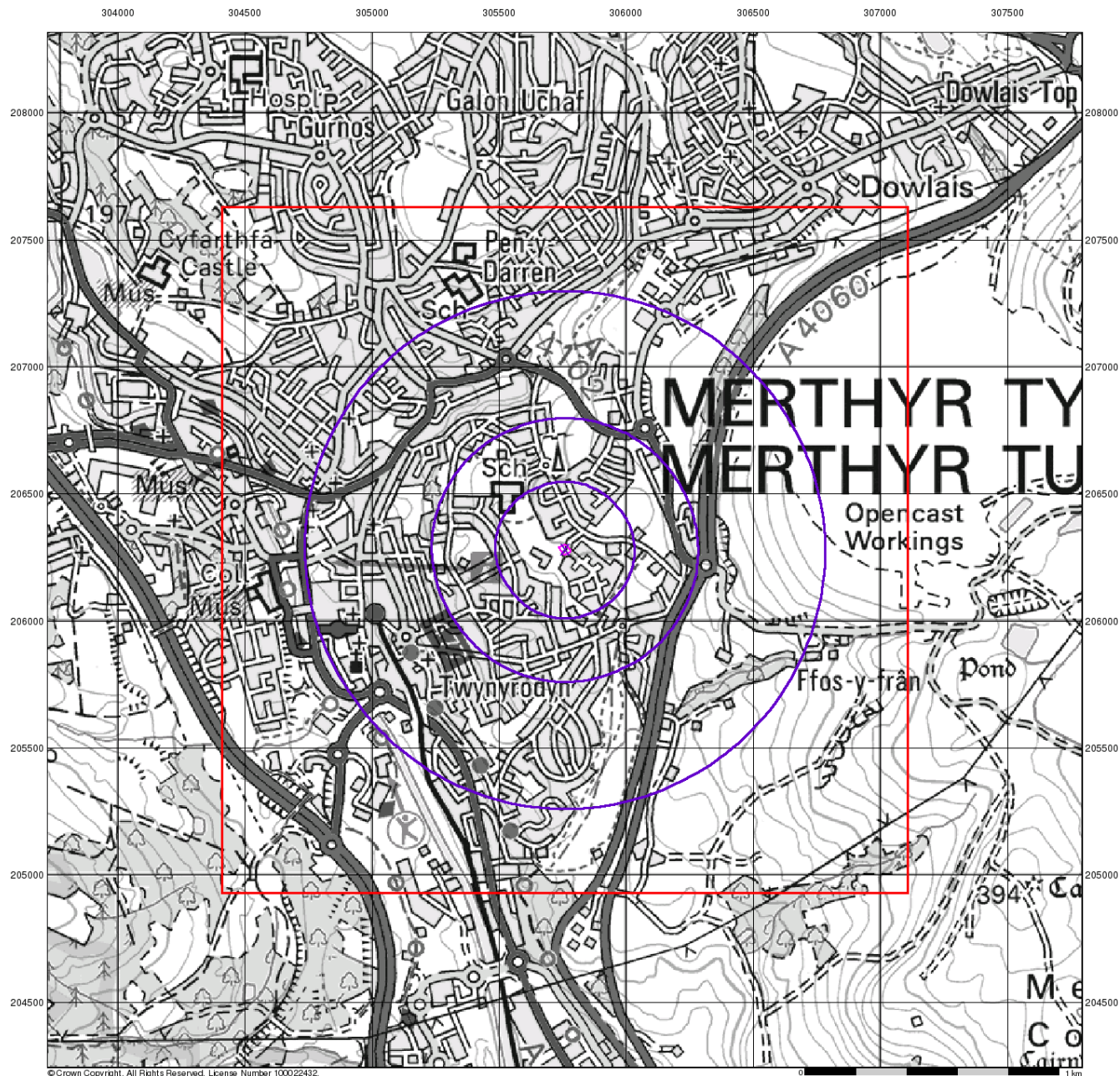
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 Site Area (Ha): 0.12
 Search Buffer (m): 1000

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Source Protection Zones

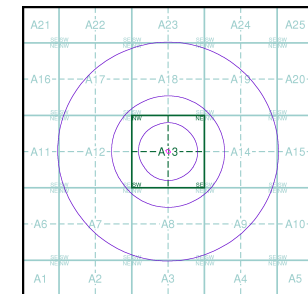
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



Order Details

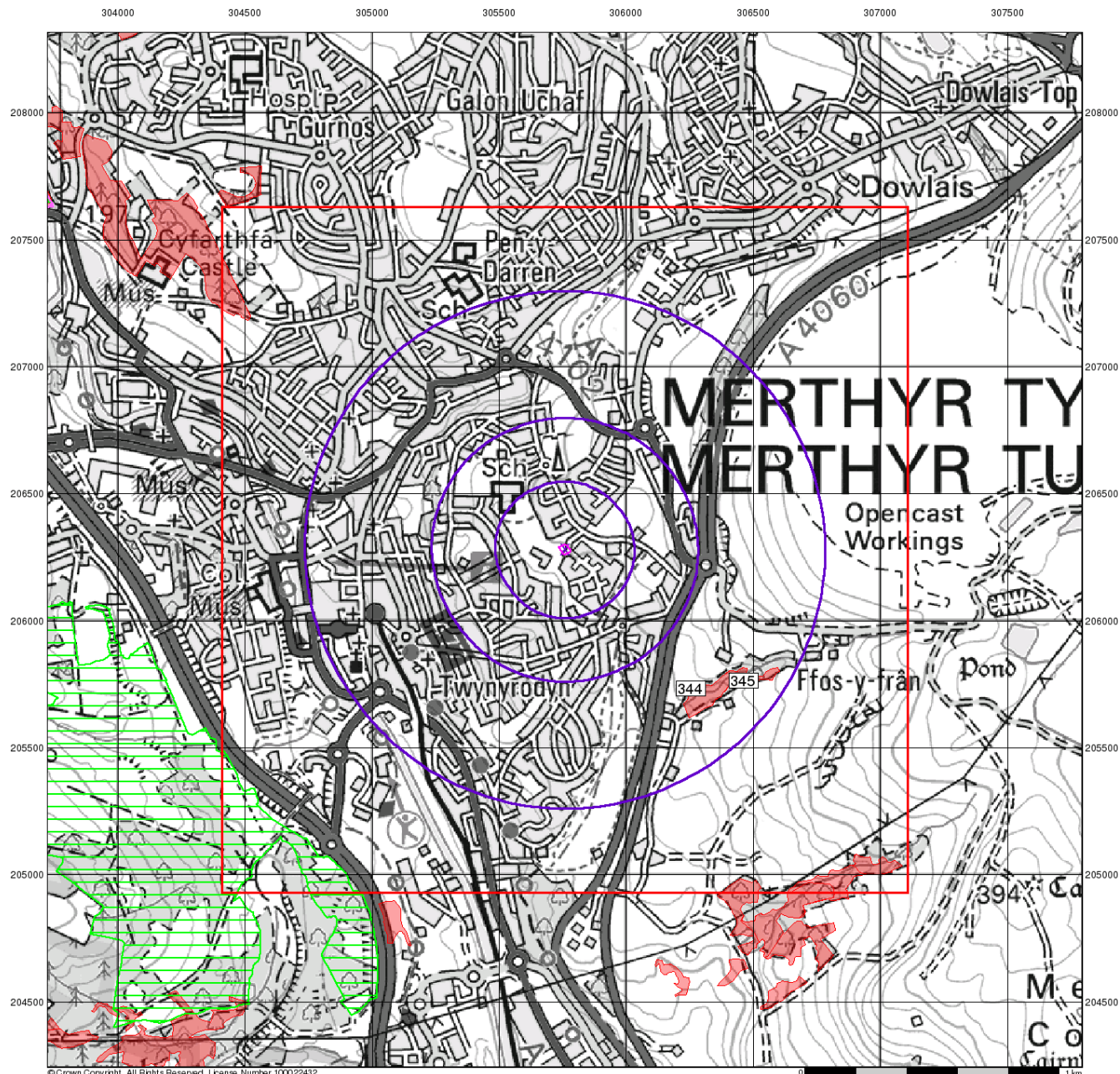
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 Site Area (Ha): 0.12
 Search Buffer (m): 1000

Site Details

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Sensitive Land Uses

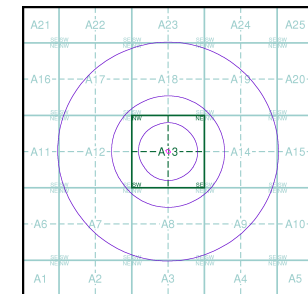
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice A



Order Details

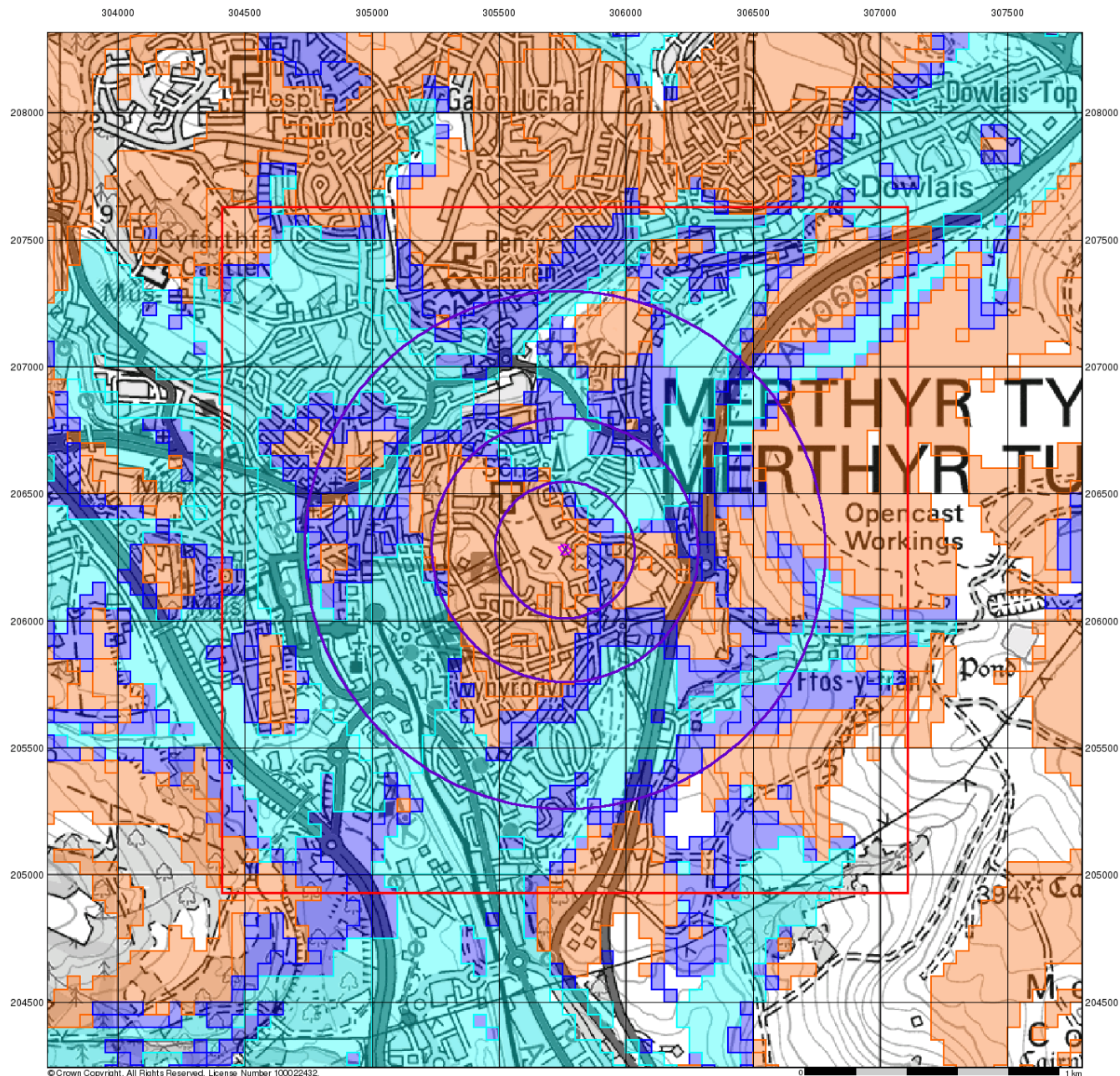
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 Site Area (Ha): 0.12
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Site Details

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BGS Flood GFS Data

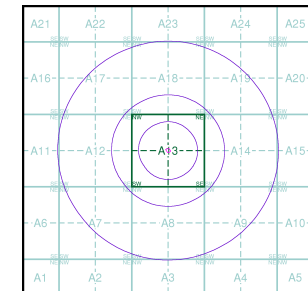
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

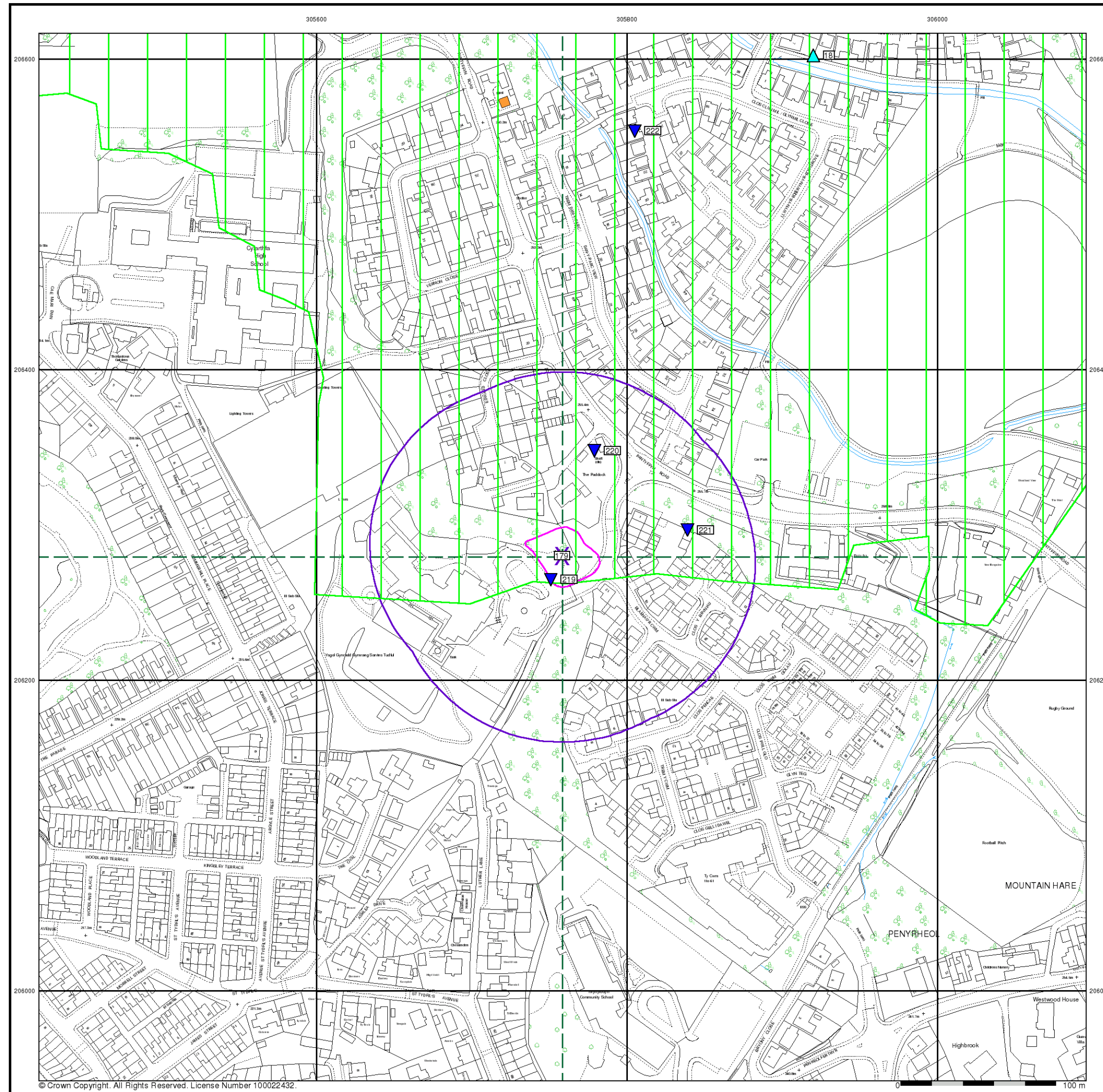
Order Number: 332266288_1_1
 Customer Ref: 18167JR
 National Grid Reference: 305760, 206280
 Slice: A
 Site Area (Ha): 0.12
 Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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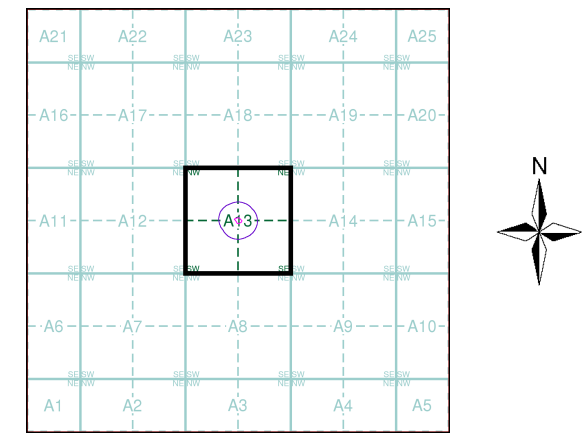


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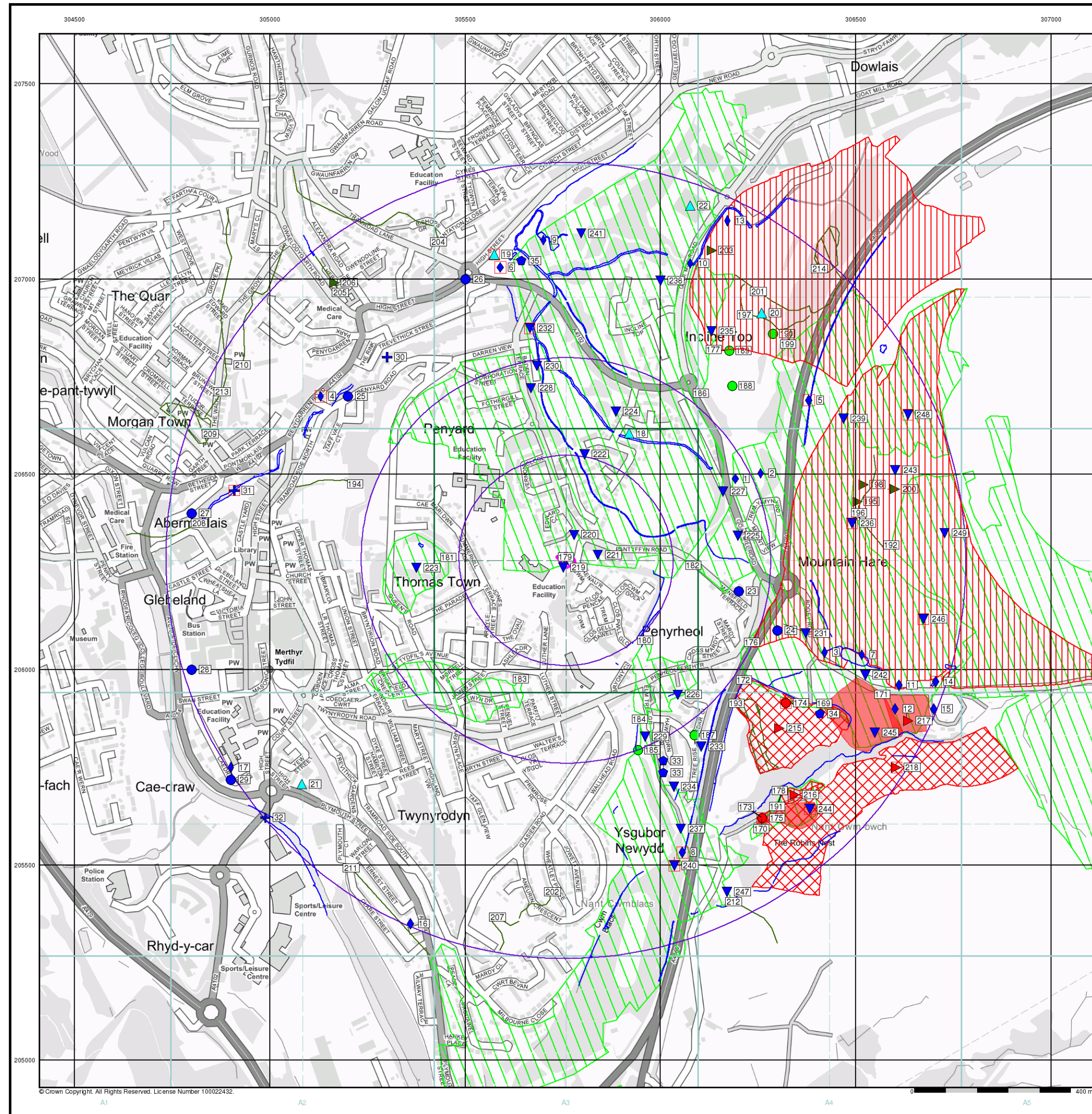
- General**
 - Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
 - Pylon
 - Overhead Transmission Line
- Agency and Hydrological**
 - Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Waste**
 - BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- Hazardous Substances**
 - COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
- Geological**
 - BGS Recorded Mineral Site

Site Sensitivity Map - Segment A13



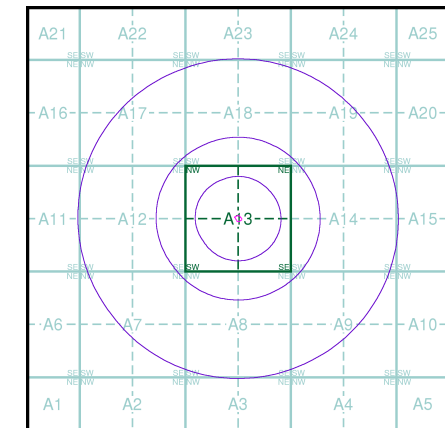
Order Details
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Plot Buffer (m): 100

Site Details
Site at 305760, 206280



- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention and Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
 - BGS Recorded Mineral Site
- Waste**
- BGS Recorded Landfill Site (Location)
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Slice A

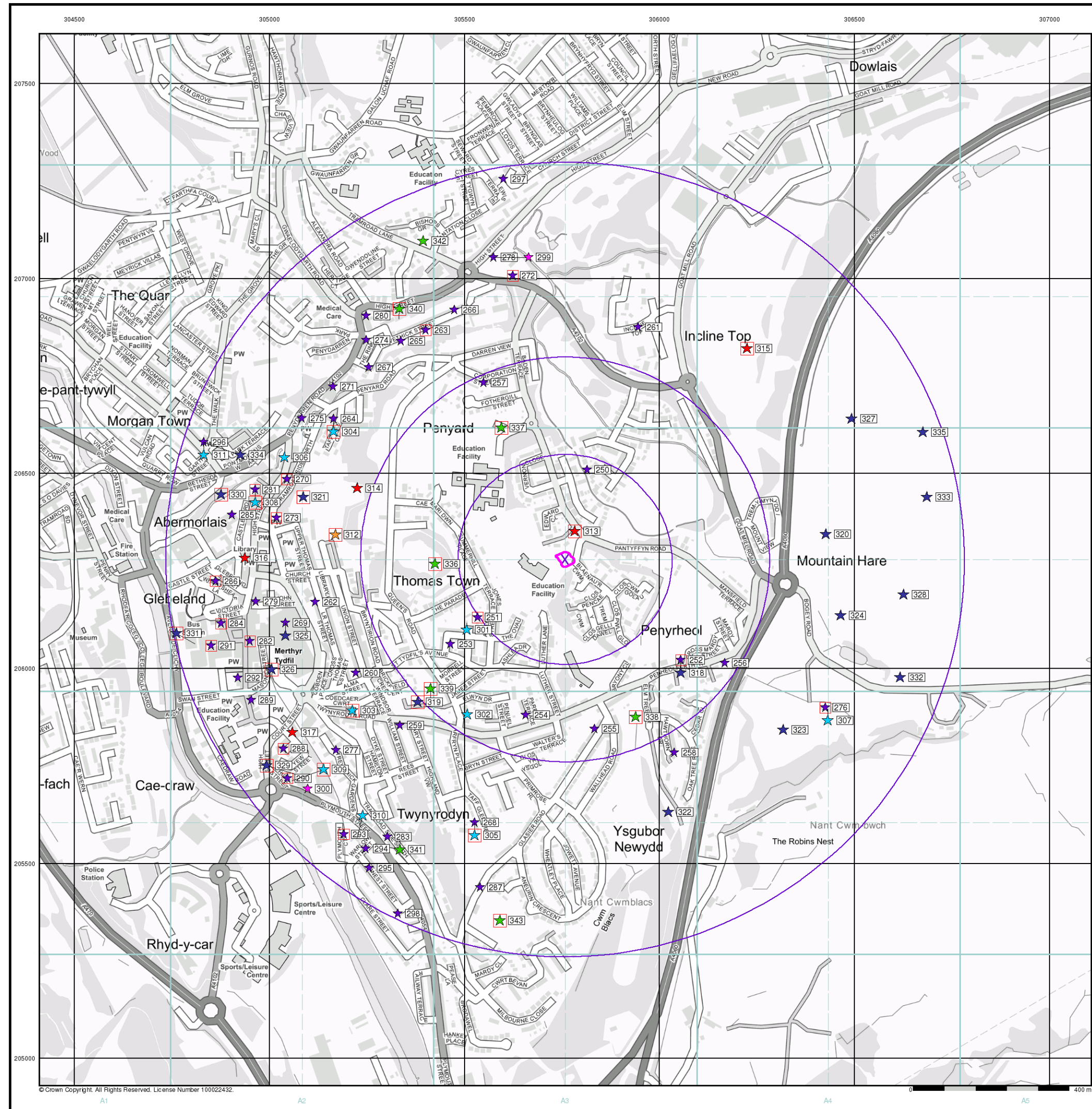


Order Details

Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



Geotechnical & Geoenvironmental Specialists
Industrial Land Use Map

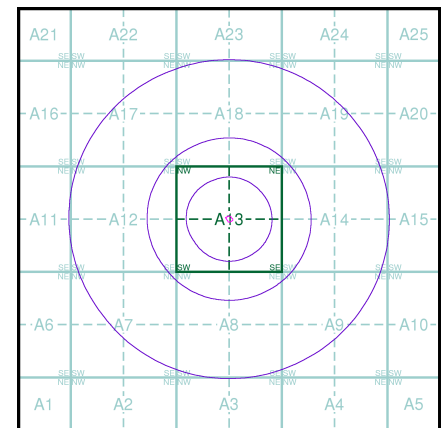
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

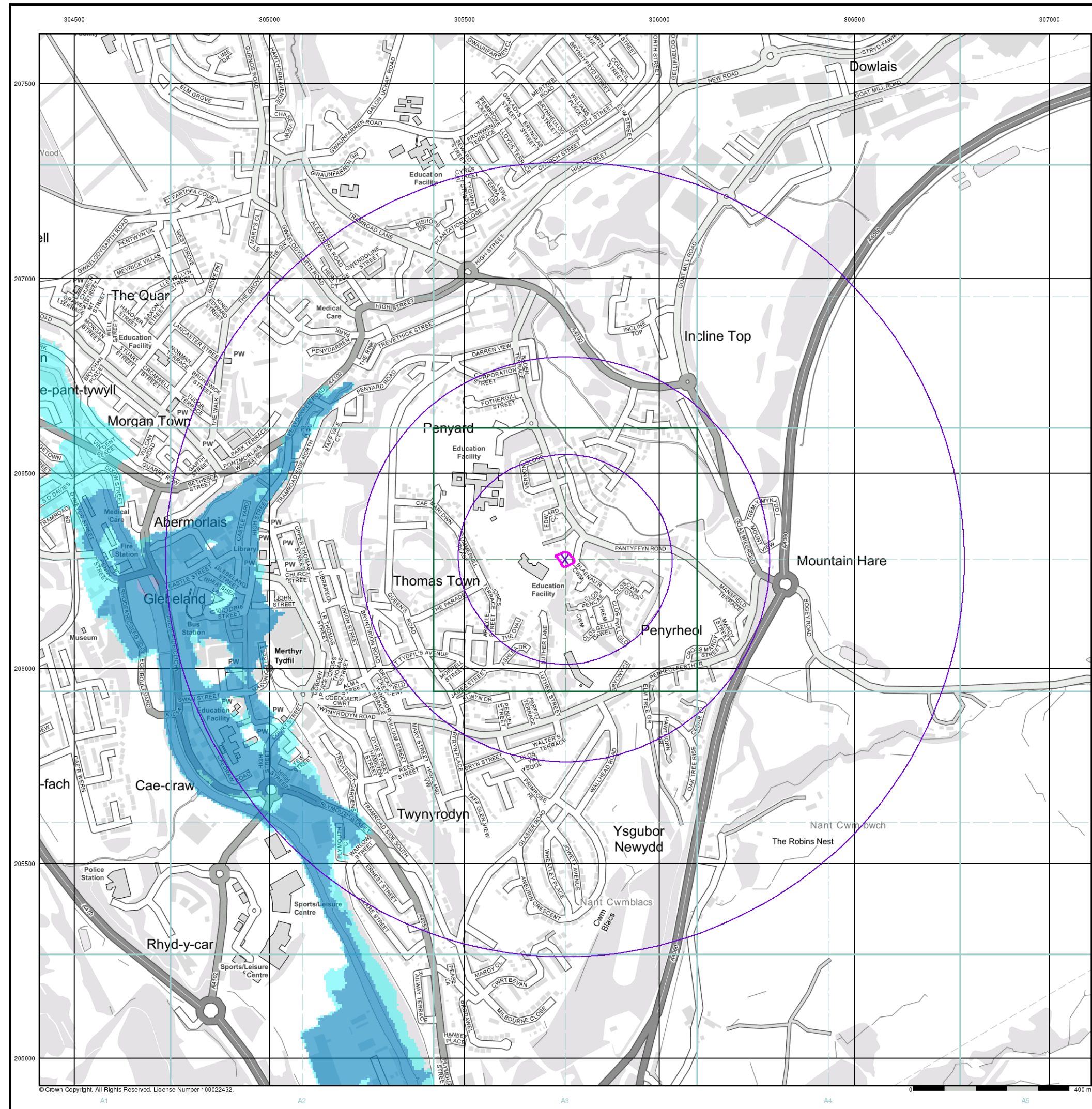
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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Web: www.envirocheck.co.uk



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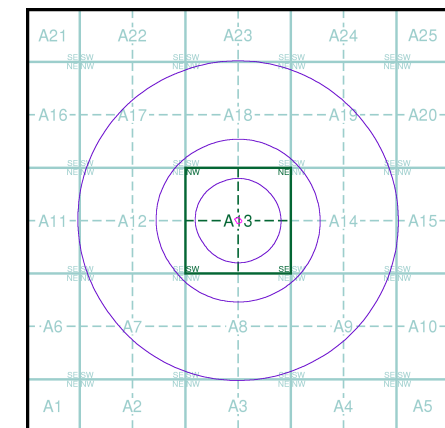
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



Order Details

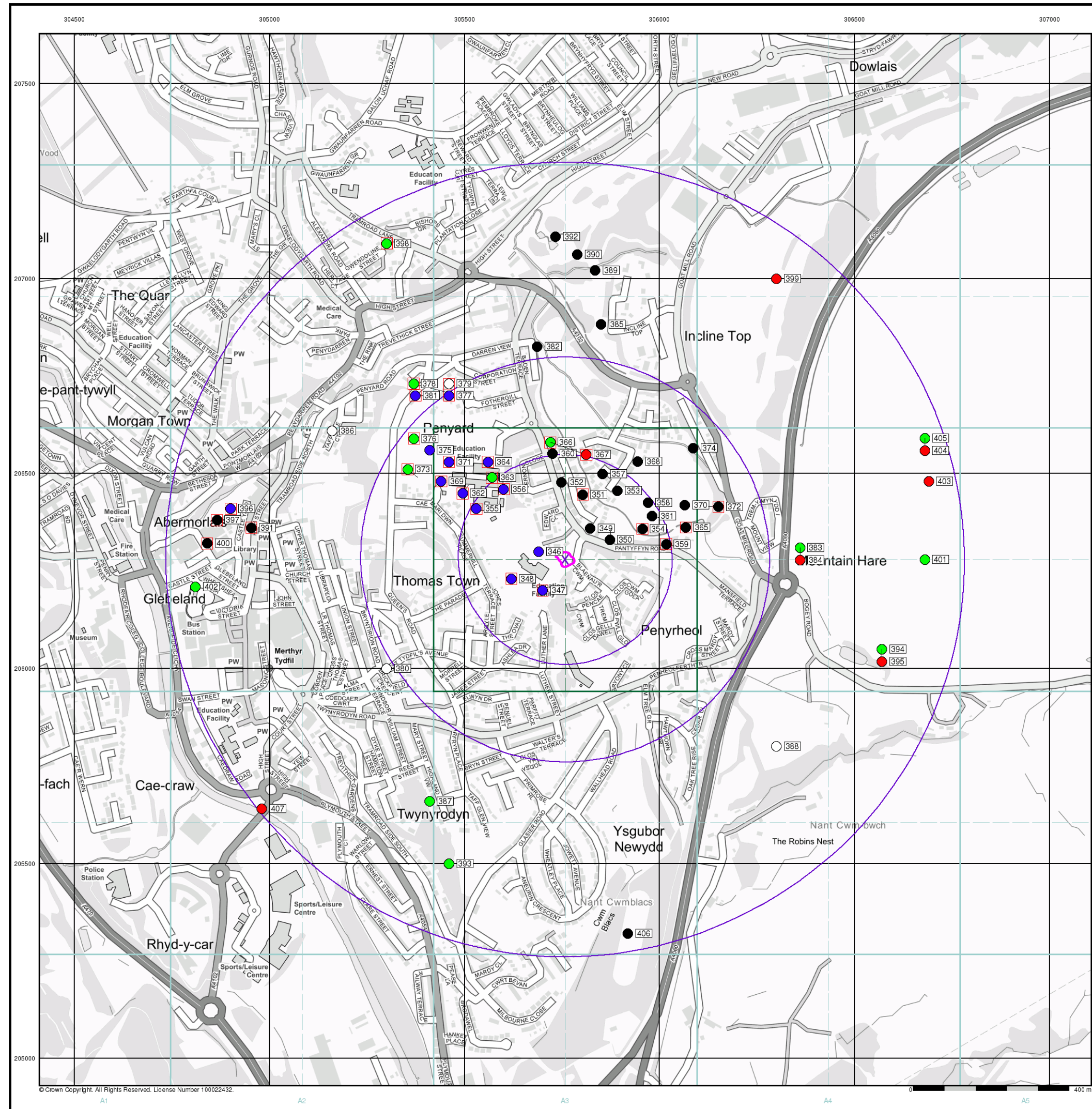
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Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

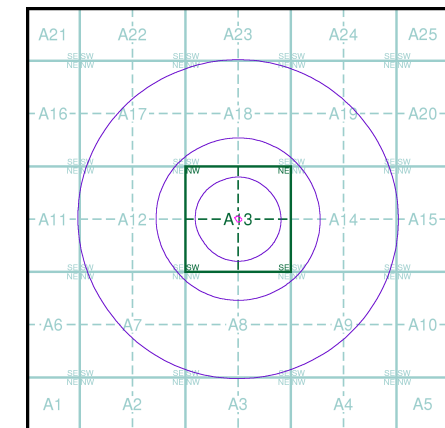
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



Order Details

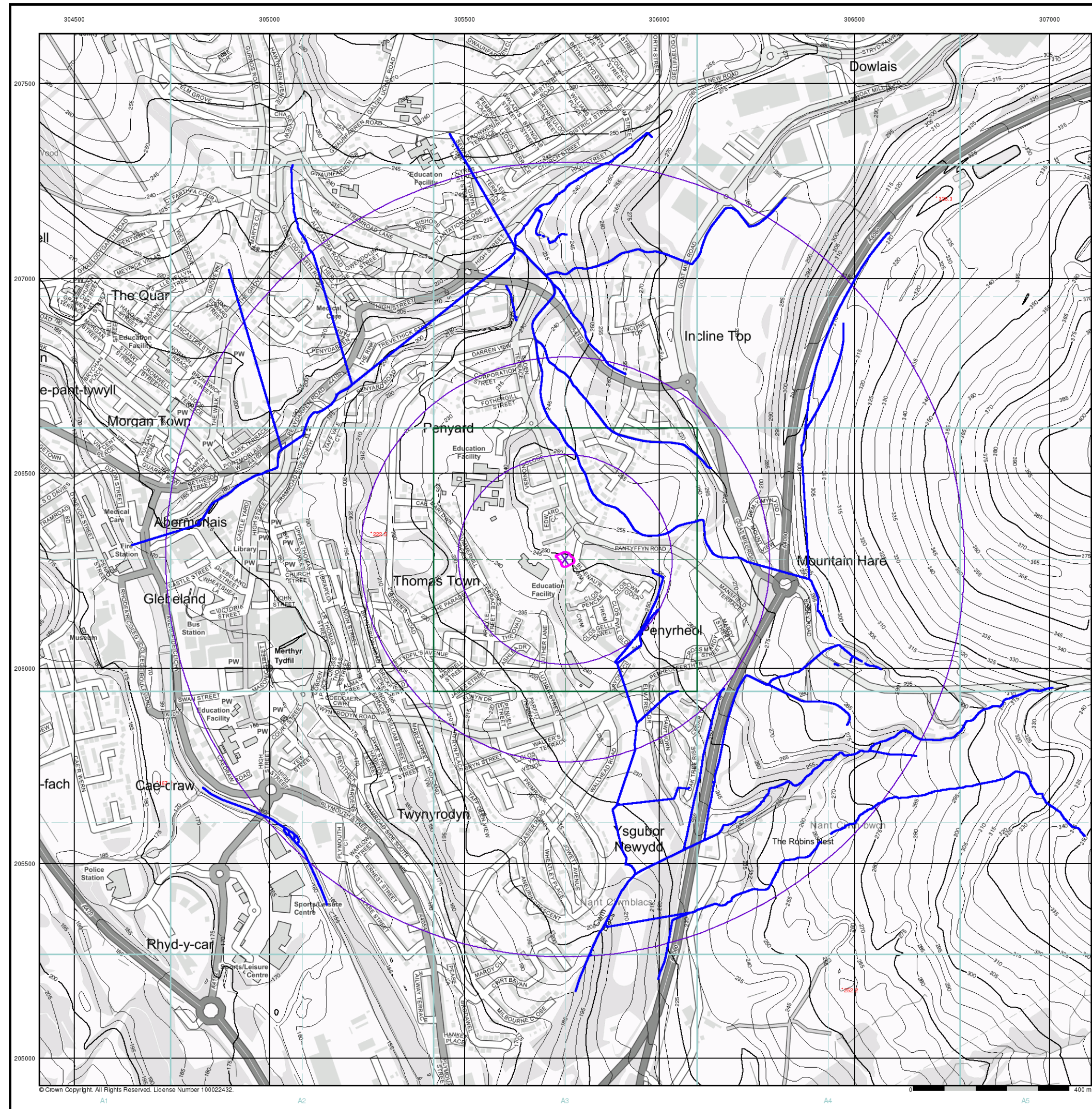
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Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

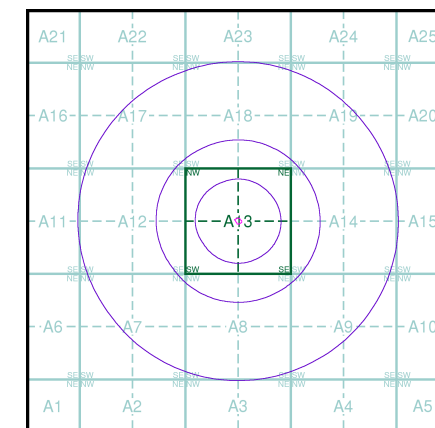
OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

Contours (height in meters)

- Standard Contour 105 100 95
- Master Contour
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



Order Details

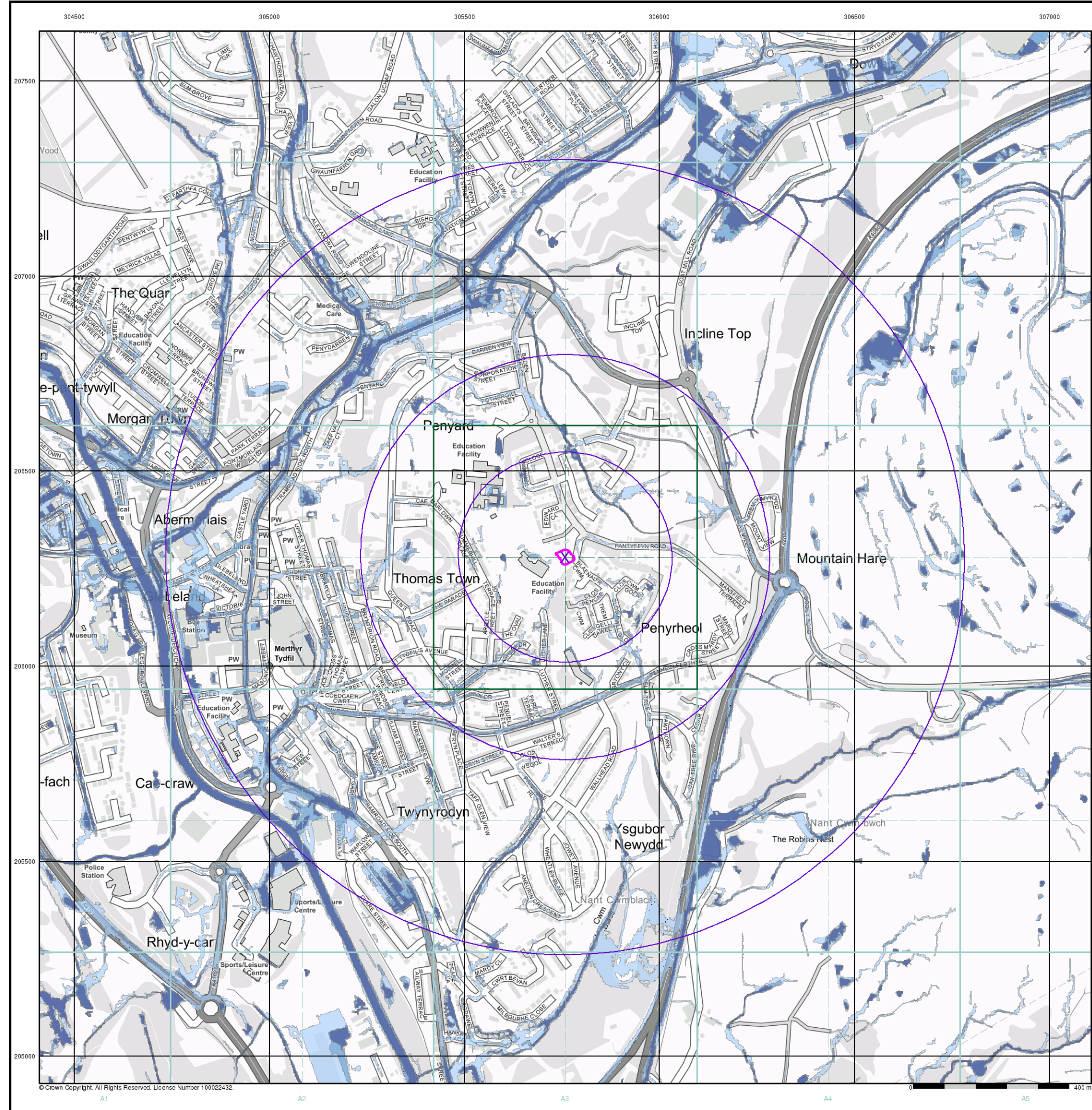
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Risk of Flooding from Surface Water

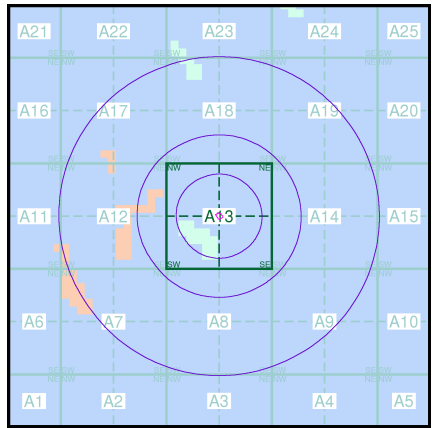
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

E/NRW Suitability Map - Slice A



Order Details

Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



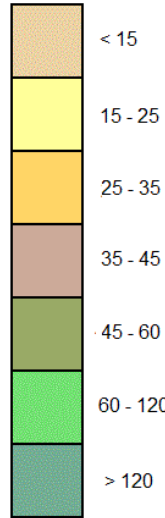
Geotechnical & Geoenvironmental Specialists

General

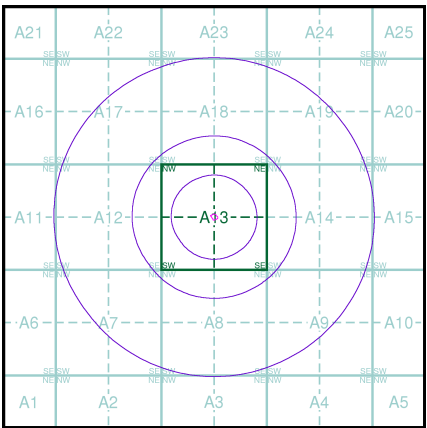
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

Order Details: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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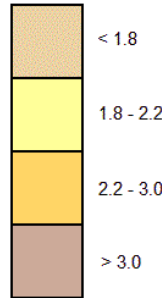
Geotechnical & Geoenvironmental Specialists

General

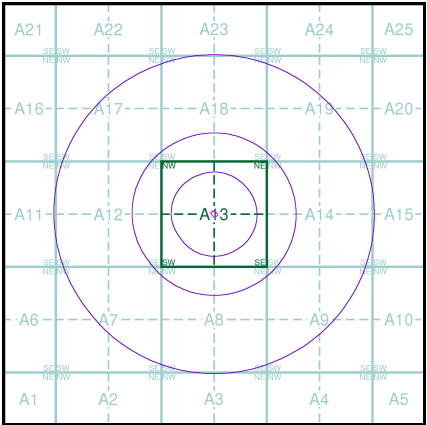
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

Order Details: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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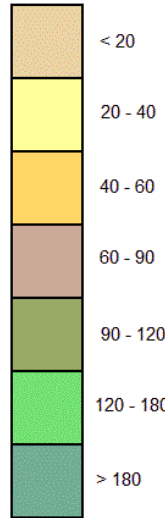
Geotechnical & Geoenvironmental Specialists

General

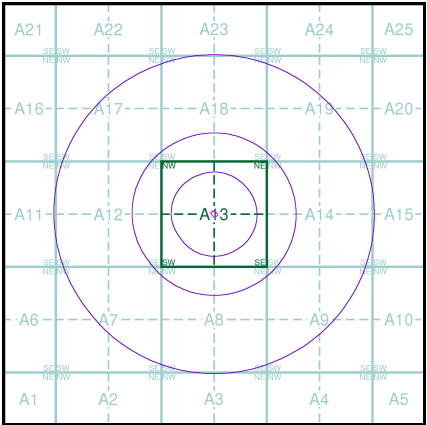
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

Order Details: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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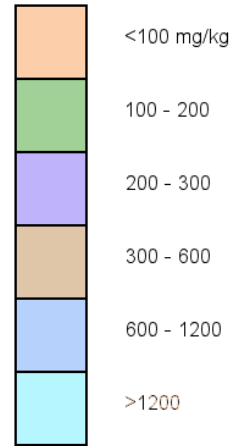
Geotechnical & Geoenvironmental Specialists

General

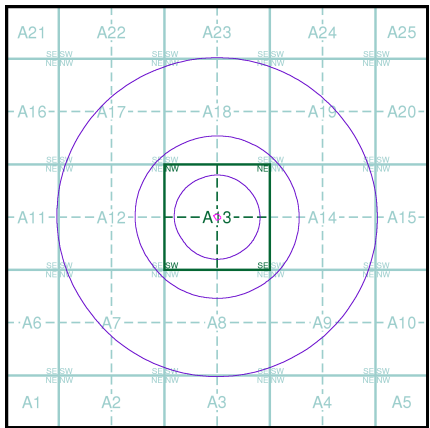
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

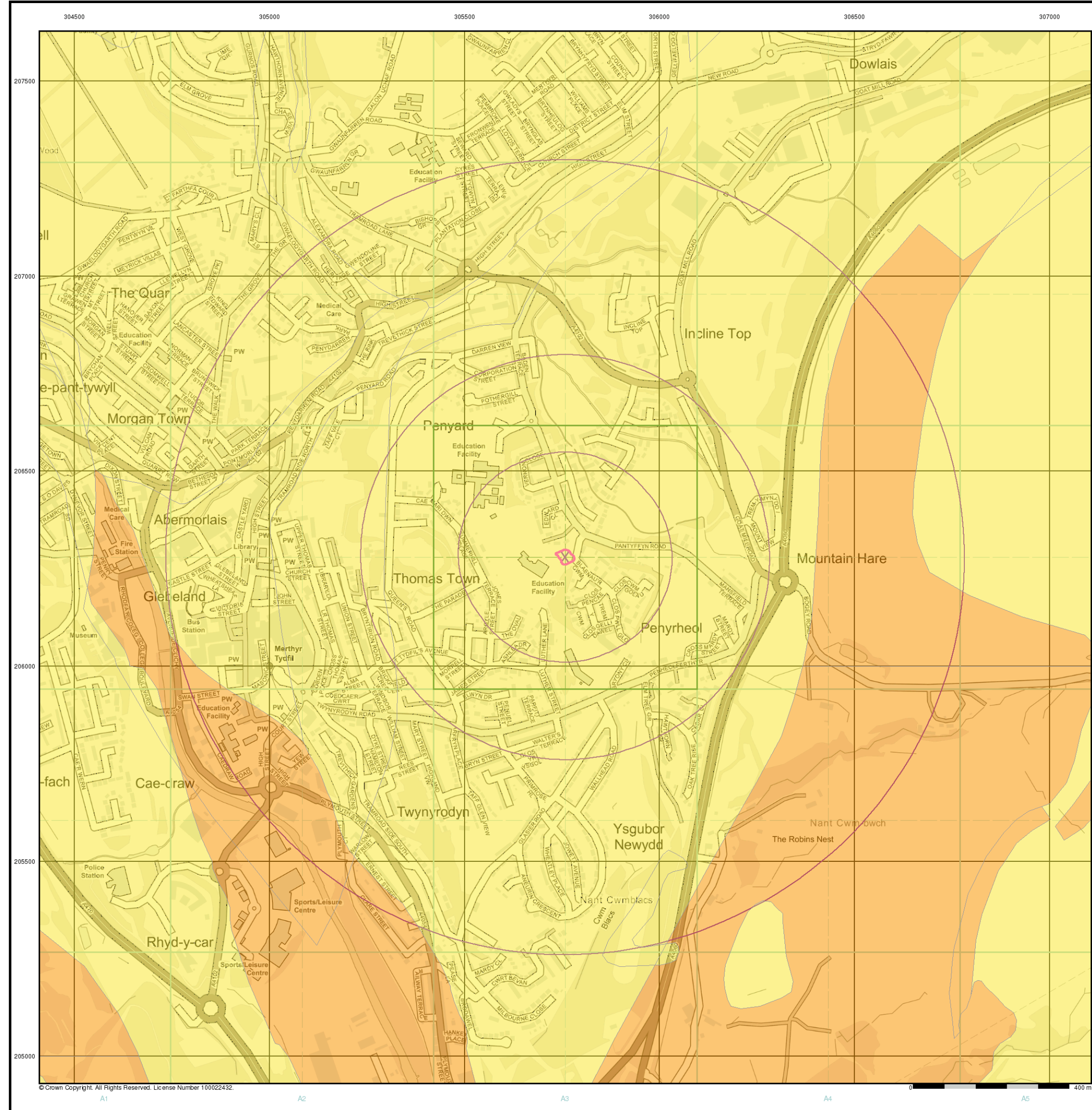
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Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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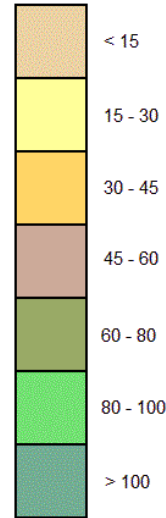
Geotechnical & Geoenvironmental Specialists

General

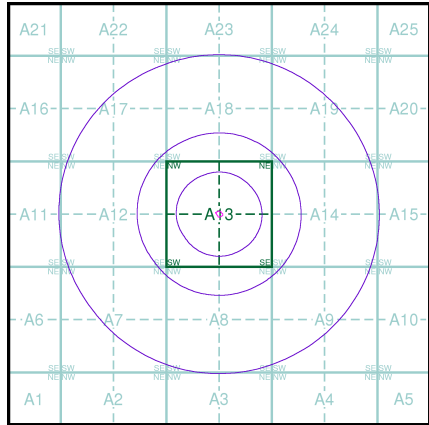
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

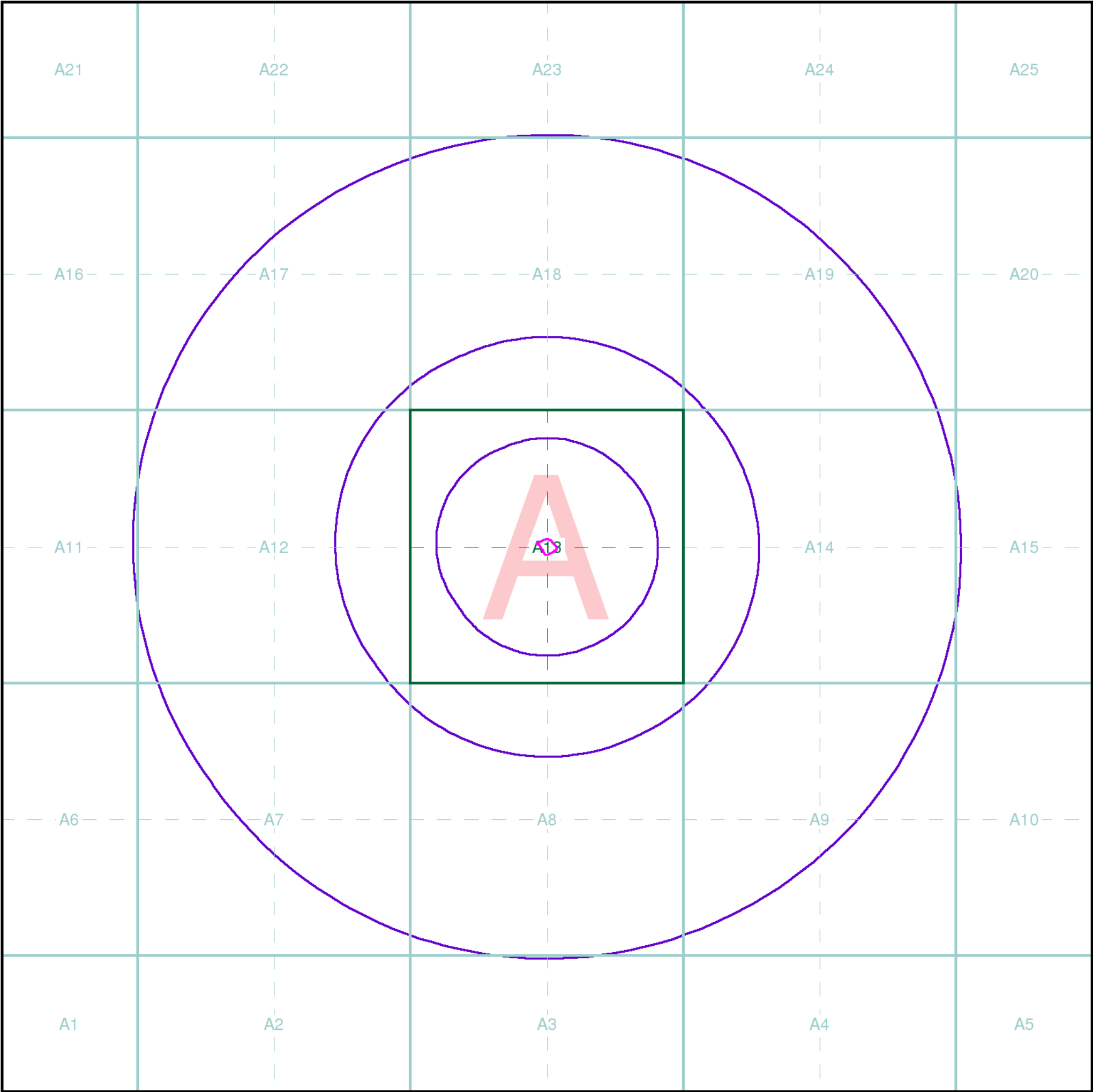
Order Details: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

Ms J Rual, TFW Group Ltd, 5 Deryn Court, Wharfdale Road, Pentwyn, Cardiff, CF23 7HB

Order Details

Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280

Full Terms and Conditions can be found on the following link:
<http://www.landmarkinfo.co.uk/Terms/Show/515>



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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

	Gravel Pit		Sand Pit		Other Pits
	Quarry		Shingle		Orchard
	Osiers		Reeds		Marsh
	Mixed Wood		Deciduous		Brushwood
	Fir		Furze		Rough Pasture
	Arrow denotes flow of water		Trigonometrical Station		
	Site of Antiquities		Bench Mark		
	Pump, Guide Post, Signal Post		Well, Spring, Boundary Post		
	•285 Surface Level				
	Sketched Contour		Instrumental Contour		
	Main Roads		Minor Roads		
	Sunken Road		Raised Road		
	Road over Railway		Railway over River		
	Railway over Road		Level Crossing		
	Road over River or Canal		Road over Stream		
	Road over Stream				
	County Boundary (Geographical)				
	County & Civil Parish Boundary				
	Administrative County & Civil Parish Boundary				
	County Borough Boundary (England)				
	County Burgh Boundary (Scotland)				
	Rural District Boundary				
	Civil Parish Boundary				

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Bracken		Heath
	Marsh		Reeds
	Building		Glasshouse
	Sloping Masonry		Pylon
	Cutting		Embankment
	Road Under		Road Over
	Level Crossing		Foot Bridge
	Standard Gauge Multiple Track		Standard Gauge Single Track
	Siding, Tramway or Mineral Line		Narrow Gauge
	Geographical County		Administrative County, County Borough or County of City
	Municipal Borough, Urban or Rural District, Burgh or District Council		Borough, Burgh or County Constituency
	Civil Parish		
	BP, BS Boundary Post or Stone		Police Station
	Church		Post Office
	Club House		Public Convenience
	Fire Engine Station		Public House
	Foot Bridge		Signal Box
	Fountain		Spring
	Guide Post		Telephone Call Box
	Mile Post		Telephone Call Post
	Mile Stone		Well

1:10,000 Raster Mapping

	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
	Area of wooded vegetation		Non-coniferous trees
	Non-coniferous trees (scattered)		Coniferous trees
	Coniferous trees (scattered)		Positioned tree
	Orchard		Coppice or Osiers
	Rough Grassland		Heath
	Scrub		Marsh, Salt Marsh or Reeds
	Water feature		Flow arrows
	Mean high water (springs)		Mean low water (springs)
	Telephone line (where shown)		Electricity transmission line (with poles)
	Bench mark (where shown)		Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)		Pylon, flare stack or lighting tower
	Site of (antiquity)		Glasshouse
	General Building		Important Building

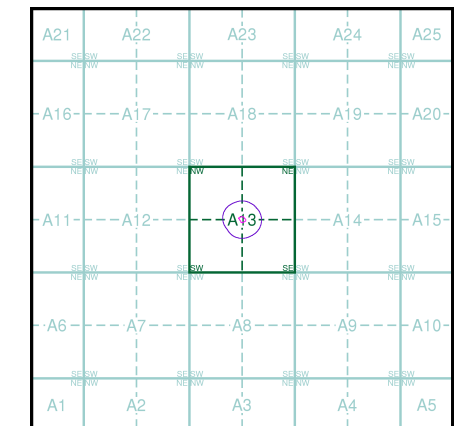


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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Brecknockshire	1:10,560	1884	2
Glamorganshire	1:10,560	1885	3
Glamorganshire	1:10,560	1901	4
Brecknockshire	1:10,560	1905	5
Brecknockshire	1:10,560	1922	6
Brecknockshire	1:10,560	1938	7
Historical Aerial Photography	1:10,560	1945	8
Brecknockshire	1:10,560	1951	9
Ordnance Survey Plan	1:10,000	1964 - 1965	10
Ordnance Survey Plan	1:10,000	1969	11
Ordnance Survey Plan	1:10,000	1970 - 1979	12
Ordnance Survey Plan	1:10,000	1982 - 1989	13
Ordnance Survey Plan	1:10,000	1990 - 1992	14
10K Raster Mapping	1:10,000	1999	15
10K Raster Mapping	1:10,000	2006	16
VectorMap Local	1:10,000	2023	17

Historical Map - Slice A



Order Details

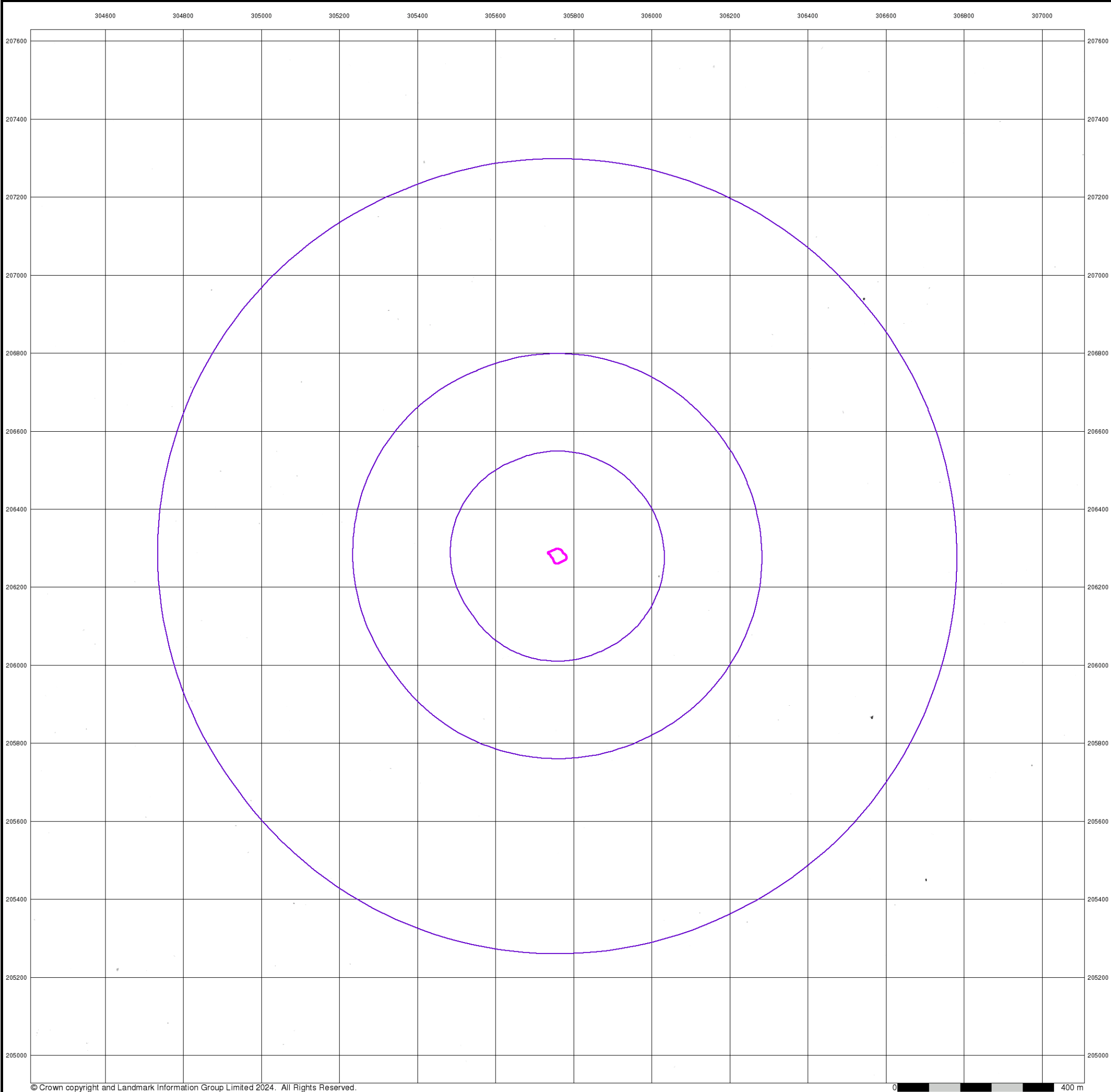
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280

Landmark
INFORMATION GROUP

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Web: www.envirocheck.co.uk



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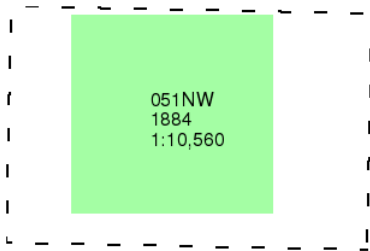
Brecknockshire

Published 1884

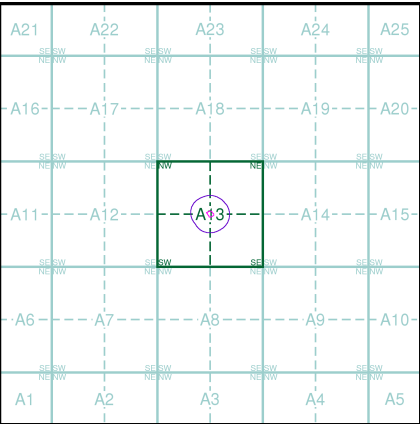
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

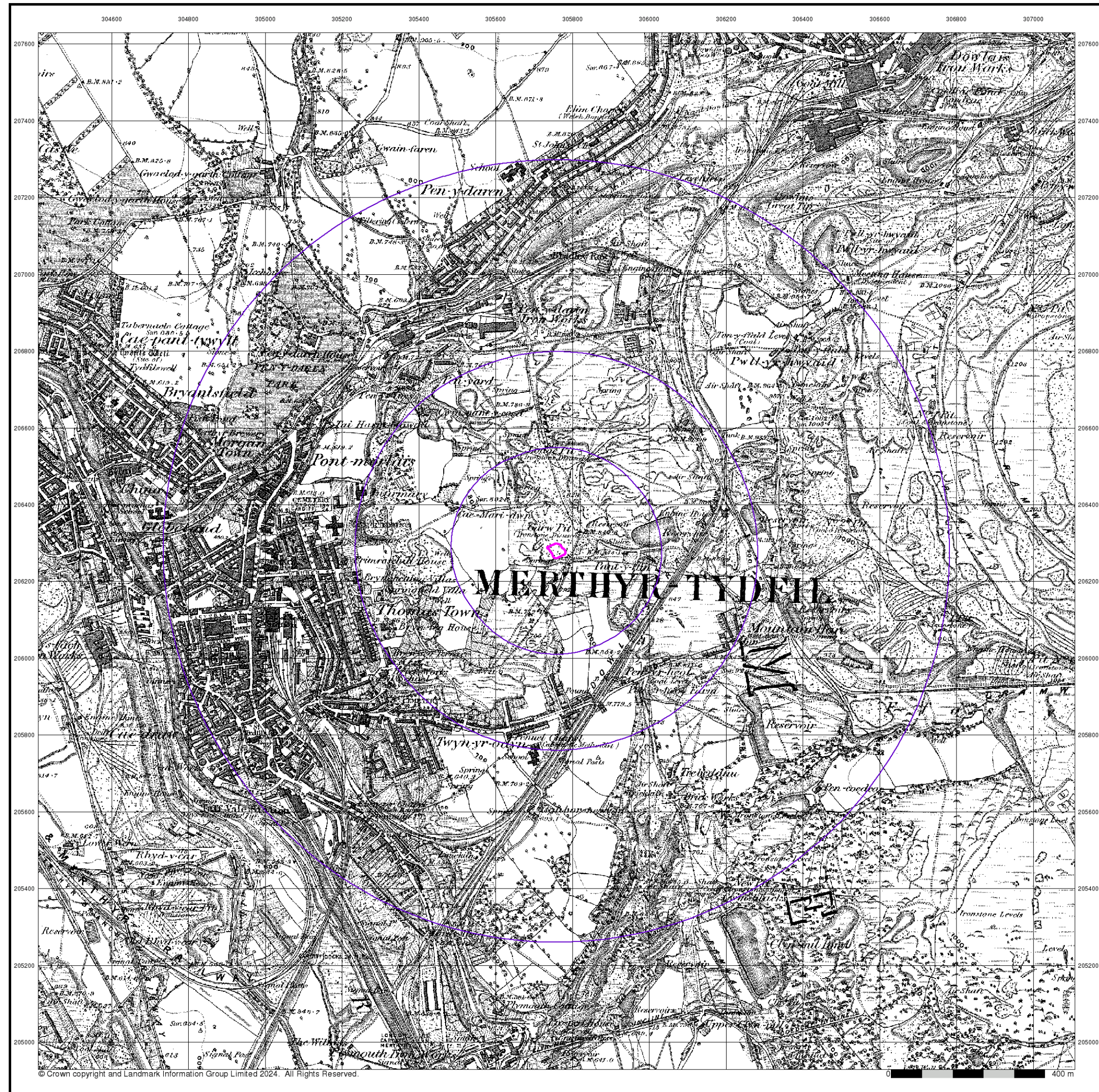
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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Glamorganshire

Published 1885

Source map scale - 1:10,560

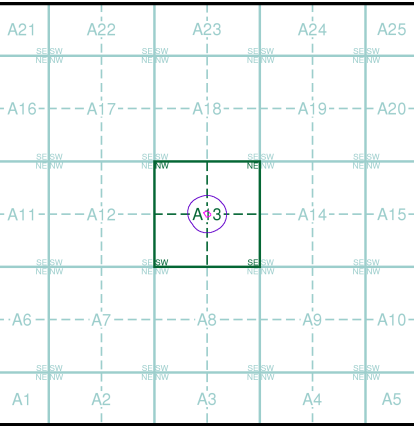
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



01200
1885
1:10,560

Historical Map - Slice A



Order Details

Order Number:	332266288_1_1
Customer Ref:	18167JR
National Grid Reference:	305760, 206280
Slice:	A
Site Area (Ha):	0.12
Search Buffer (m):	1000

Site Details

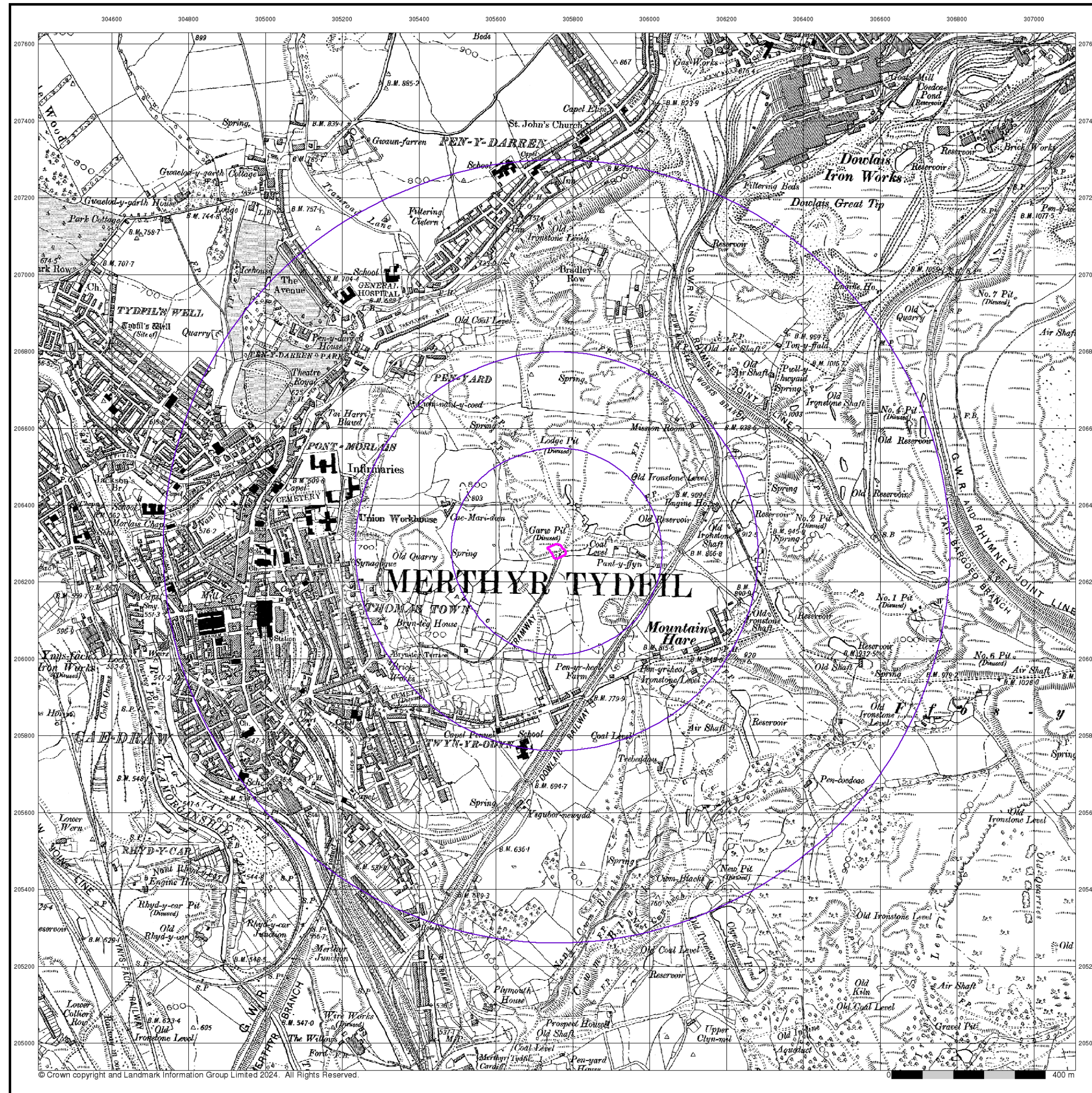
Site at 305760, 206280



Landmark
INFORMATION GROUP

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A Landmark Information Group Service v50.0 23-Jan-2024 Page 3 of 17



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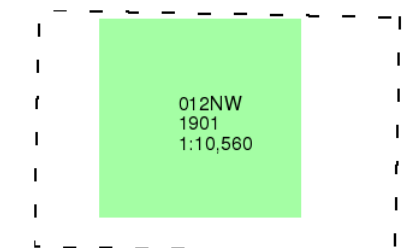
Glamorganshire

Published 1901

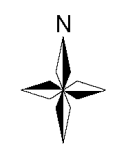
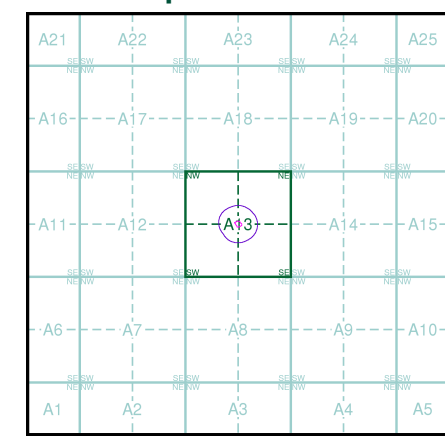
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

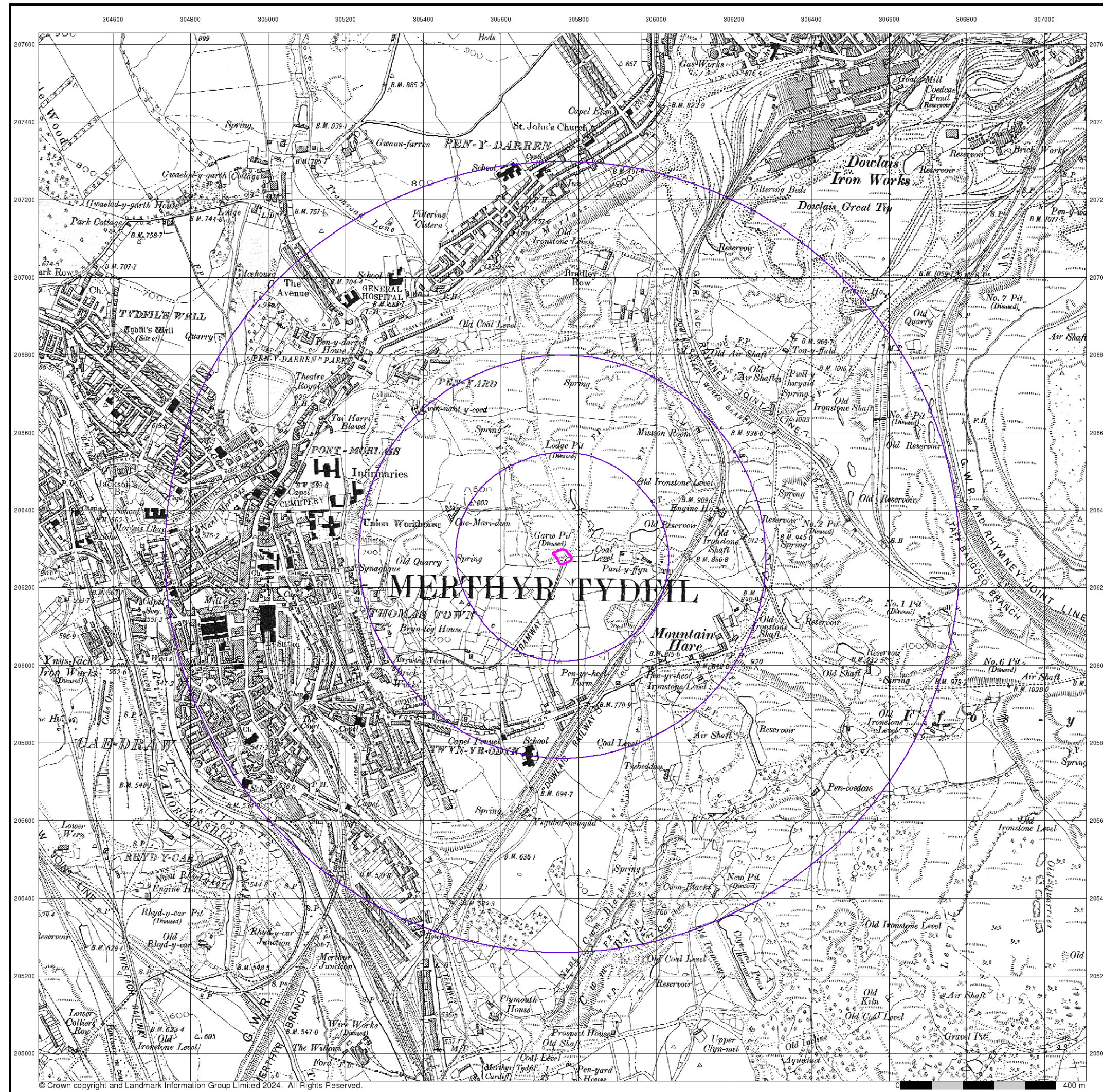
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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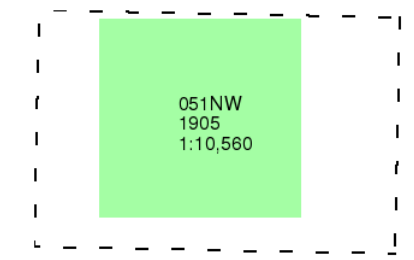
Brecknockshire

Published 1905

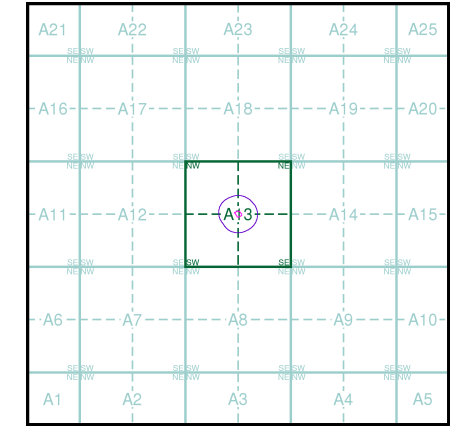
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

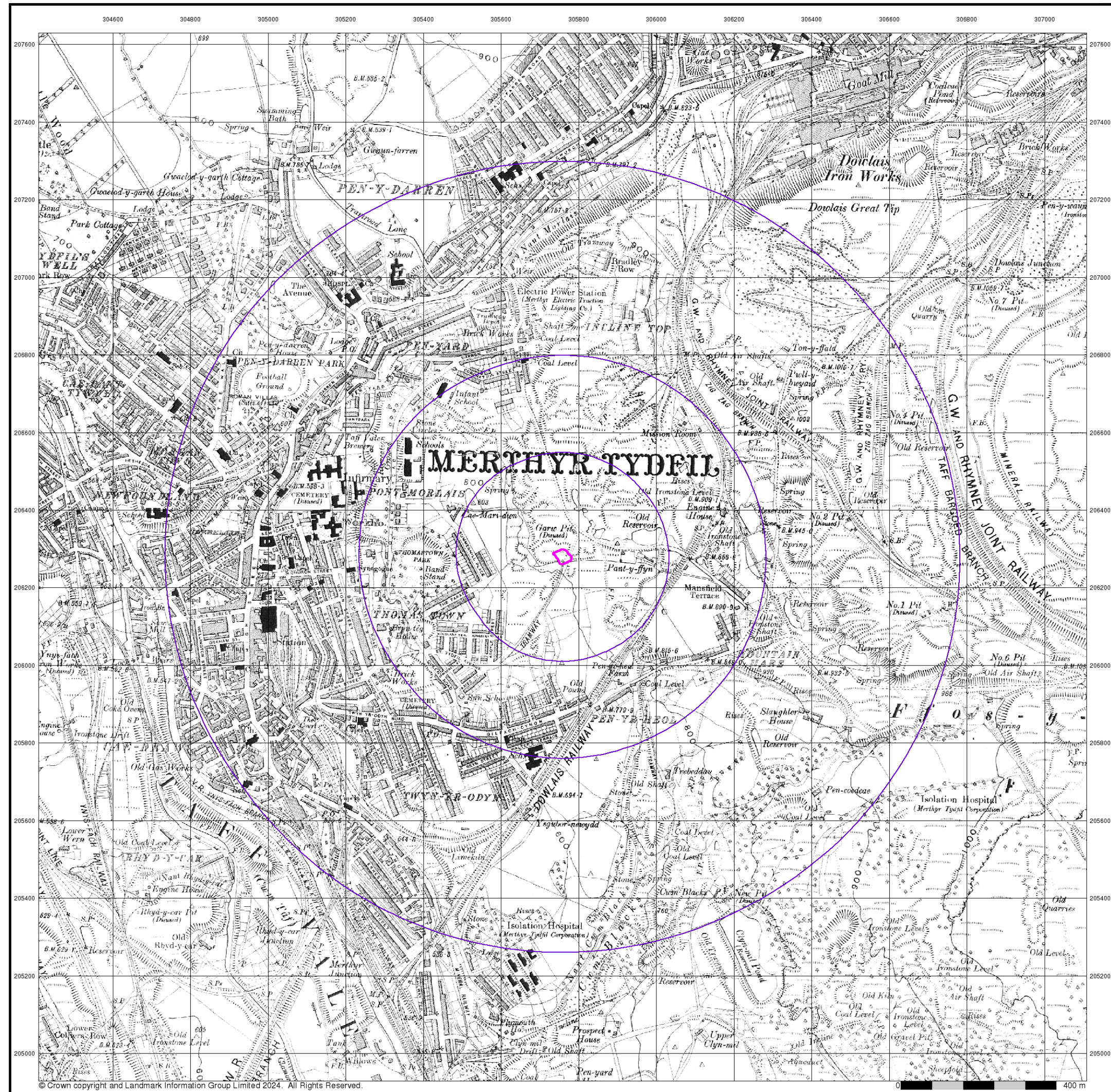
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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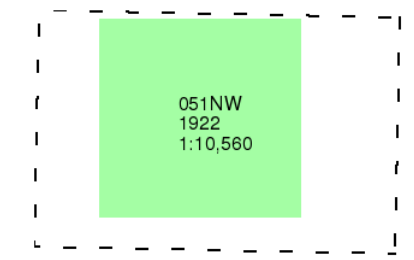
Brecknockshire

Published 1922

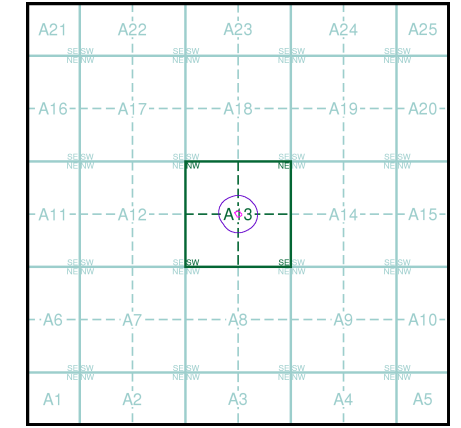
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

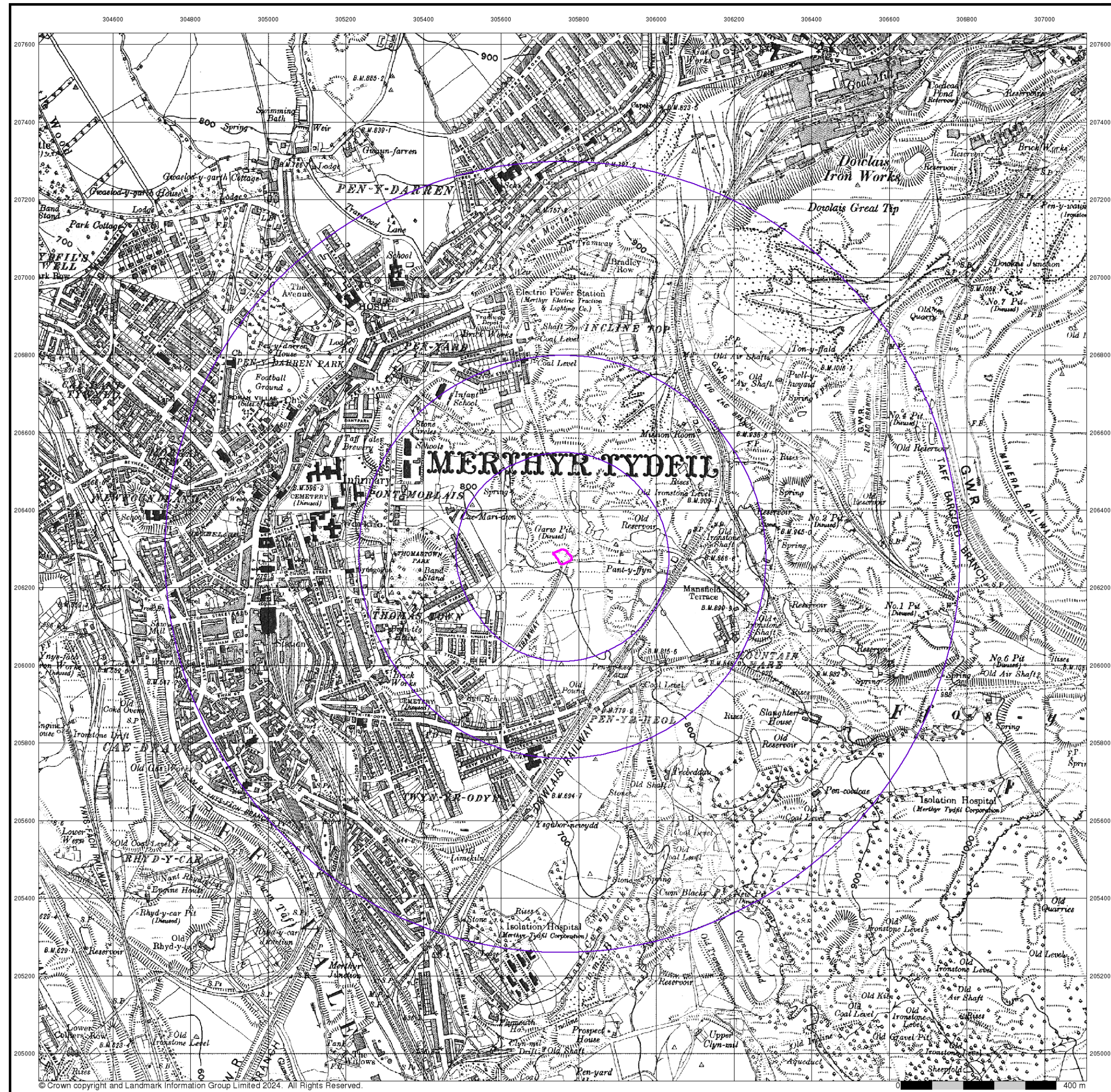
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

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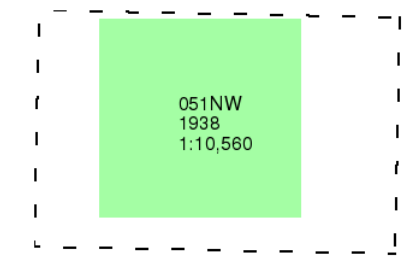
Brecknockshire

Published 1938

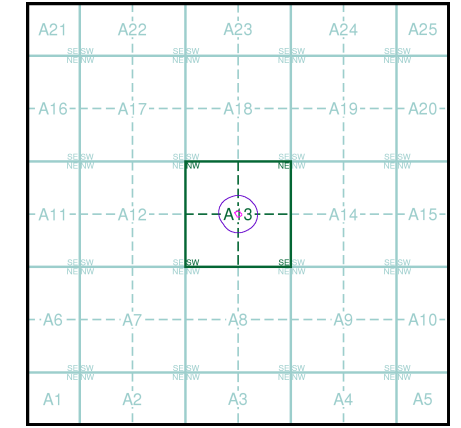
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

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Historical Aerial Photography

Published 1945

Source map scale - 1:10,560

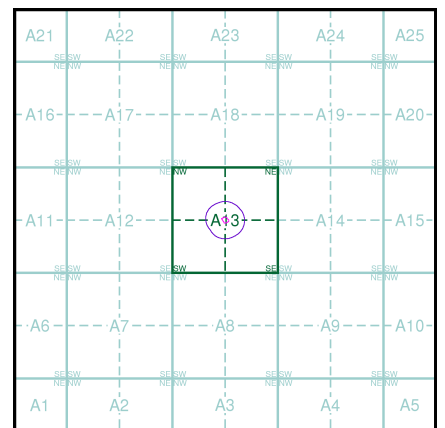
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

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Map Name(s) and Date(s)

SO00NW 1945 1:10,560	SO00NE 1945 1:10,560
SO00SW 1945 1:10,560	SO00SE 1945 1:10,560

Historical Aerial Photography - Slice A



LIBRARY
HSILIRB

Order Details

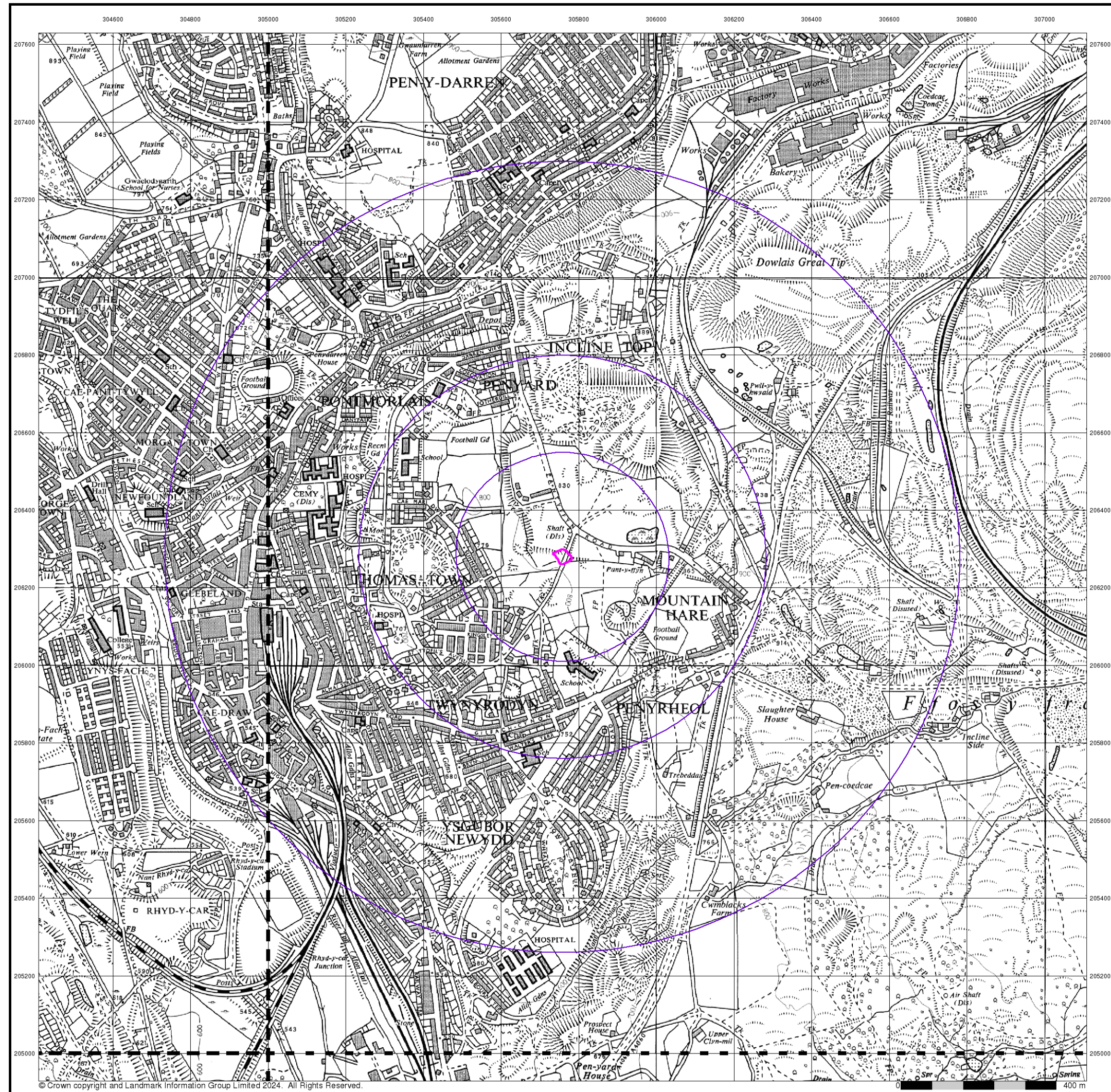
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

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Ordnance Survey Plan

Published 1964 - 1965

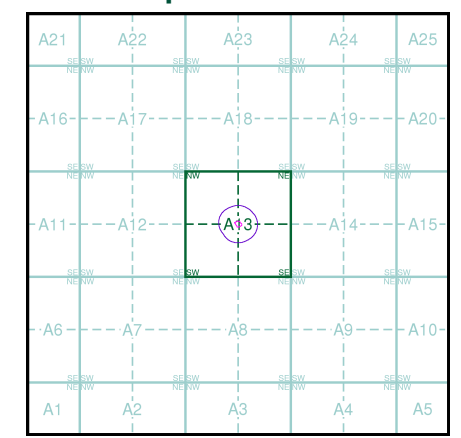
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SO00NW	SO00NE
1965	1965
1:10,560	1:10,560
SO00SW	SO00SE
1964	1964
1:10,560	1:10,560

Historical Map - Slice A



Order Details

Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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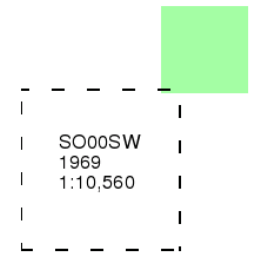
Ordnance Survey Plan

Published 1969

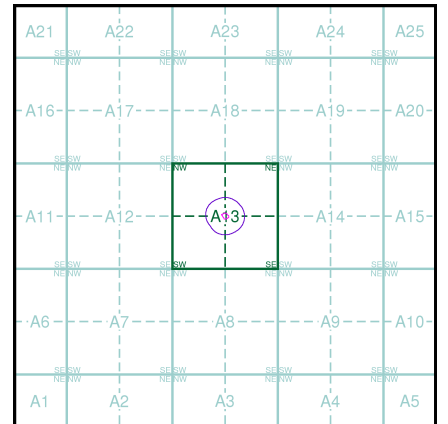
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

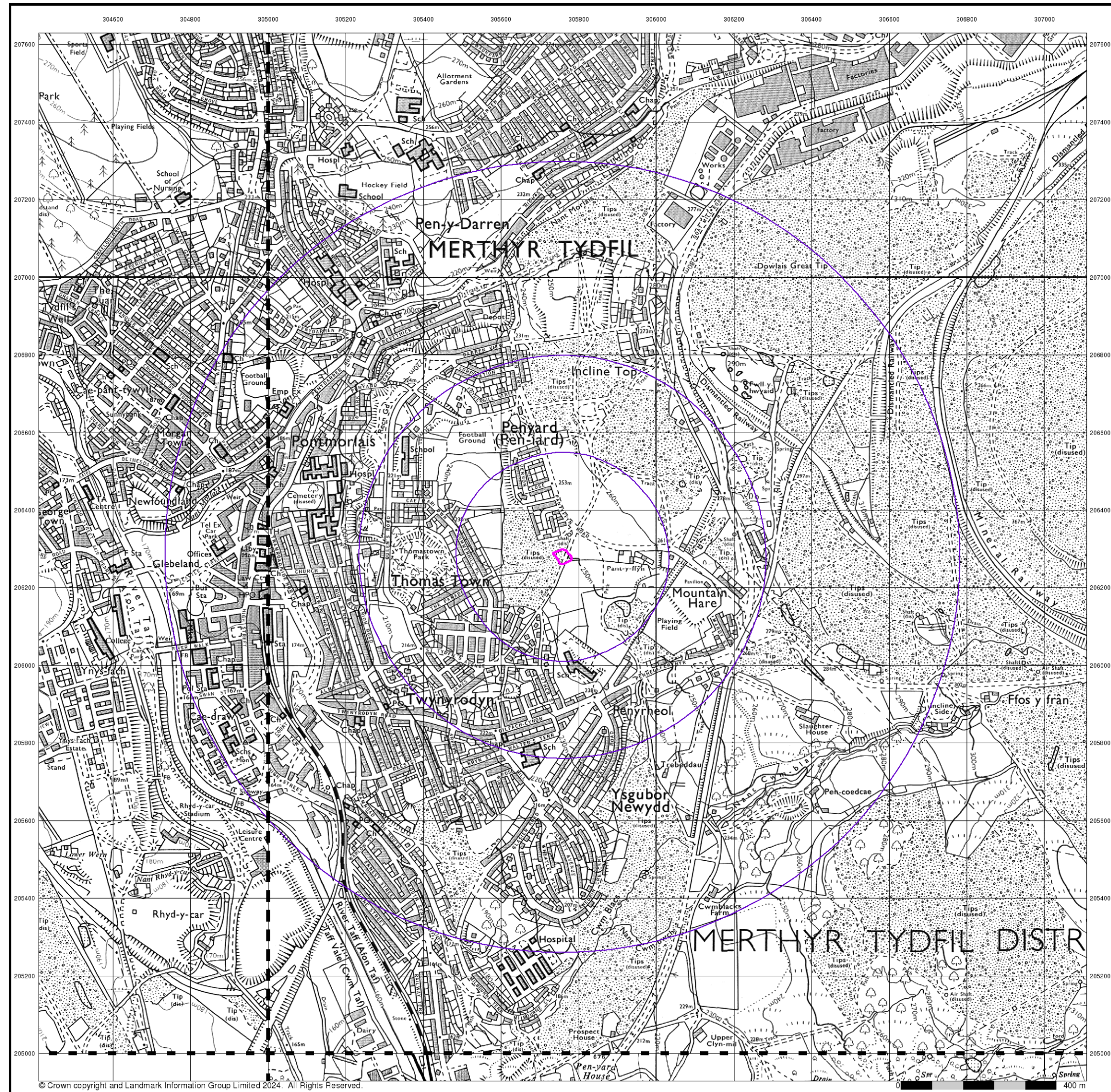
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

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Ordnance Survey Plan

Published 1970 - 1979

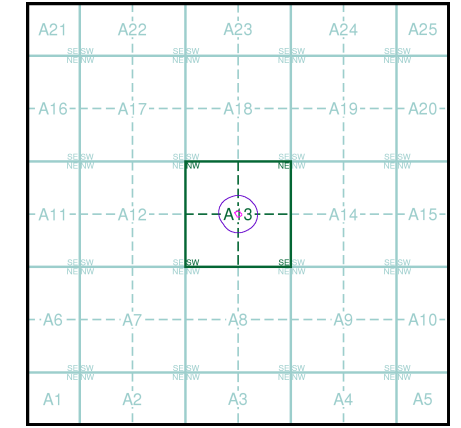
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SO00NW	SO00NE
1979	1977
1:10,000	1:10,000
	SO00SE
	1970
	1:10,560

Historical Map - Slice A



Order Details

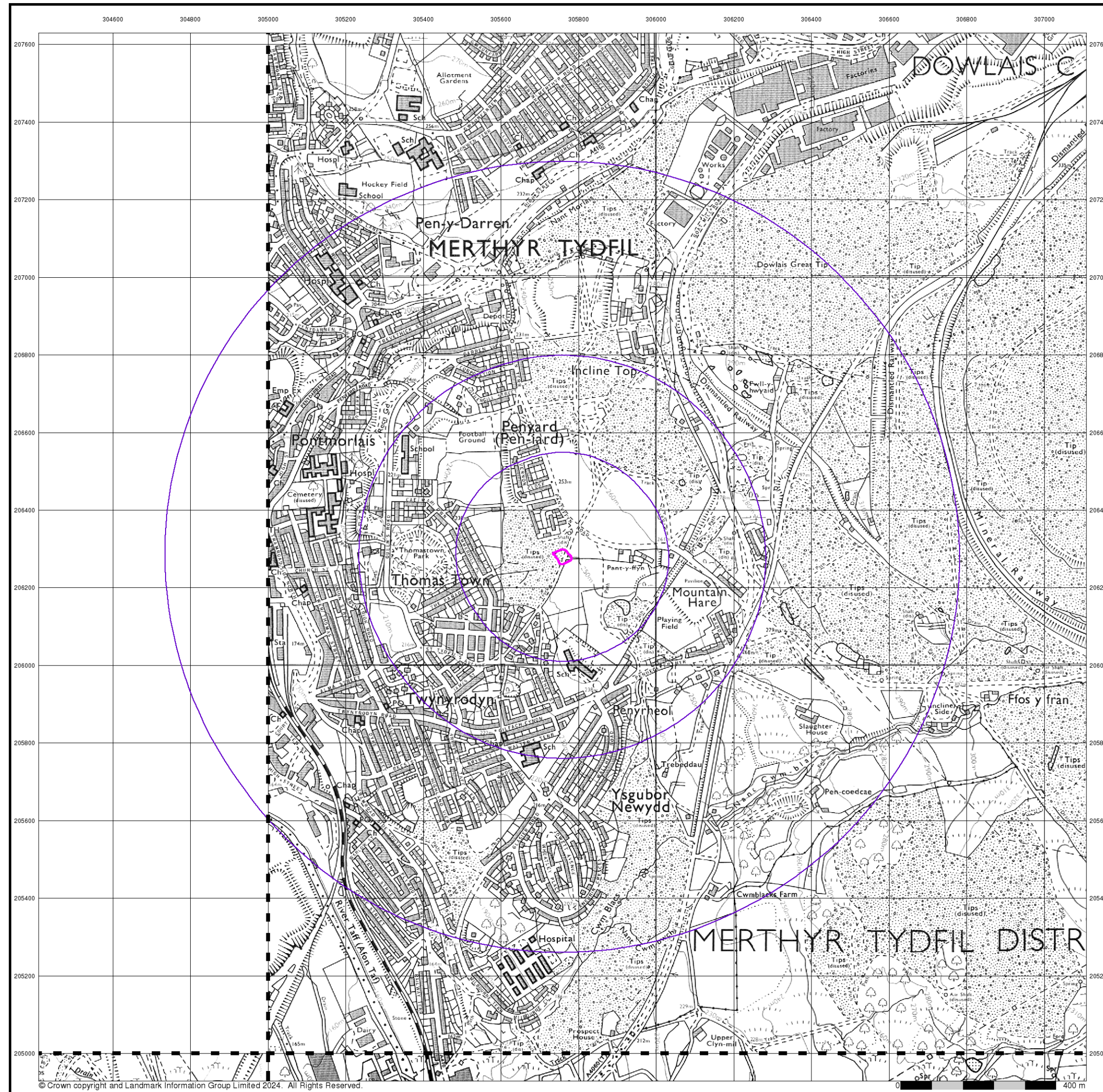
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

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Ordnance Survey Plan

Published 1982 - 1989

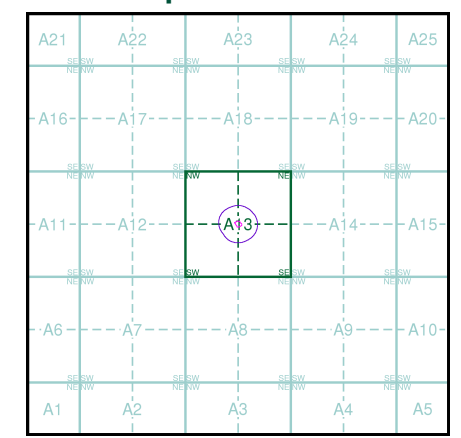
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SO00NE	1983
SO00SW	1982
SO00SE	1989

Historical Map - Slice A



Order Details

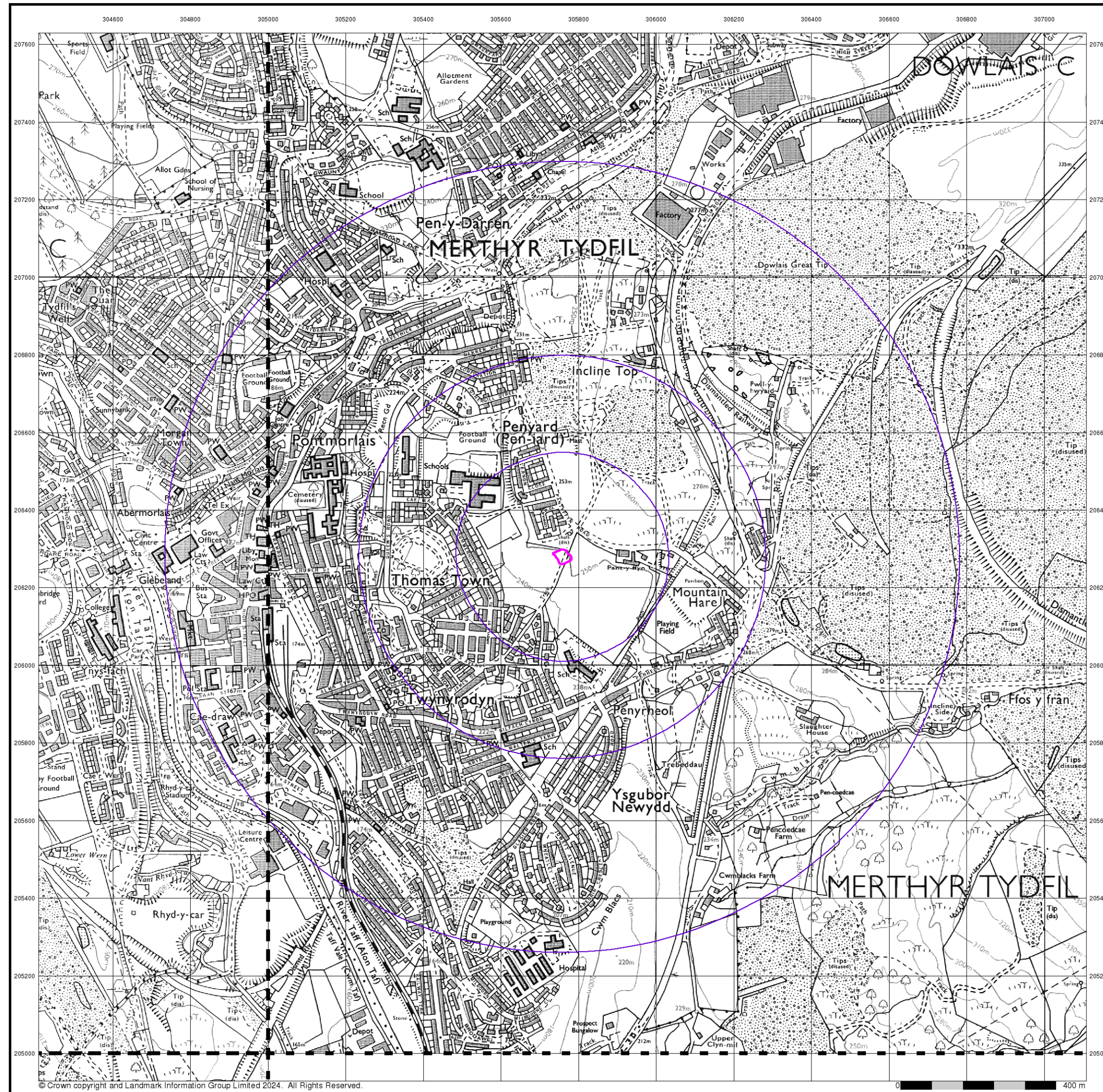
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

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Ordnance Survey Plan

Published 1990 - 1992

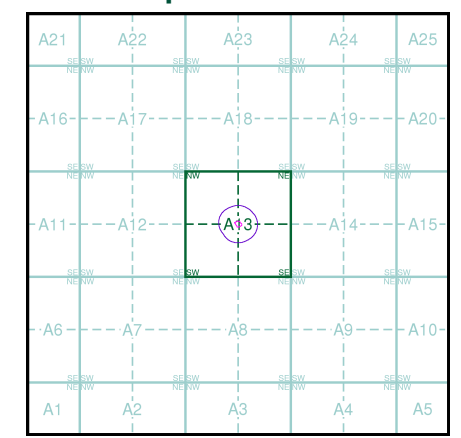
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SO00NW	SO00NE
1992	1992
1:10,000	1:10,000
SO00SW	
1990	
1:10,000	

Historical Map - Slice A



Order Details

Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

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10k Raster Mapping

Published 1999

Source map scale - 1:10,000

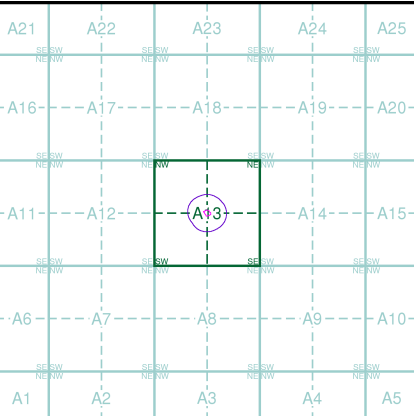
The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SO00NW	SO00NE
1999	1999
1:10,000	1:10,000

SO00SW	SO00SE
1999	1999
1:10,000	1:10,000

Historical Map - Slice A



Order Details

Order Number:	332266288_1_1
Customer Ref:	18167JR
National Grid Reference:	305760, 206280
Slice:	A
Site Area (Ha):	0.12
Search Buffer (m):	1000

Site Details

Site at 305760, 206280



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10k Raster Mapping

Published 2006

Source map scale - 1:10,000

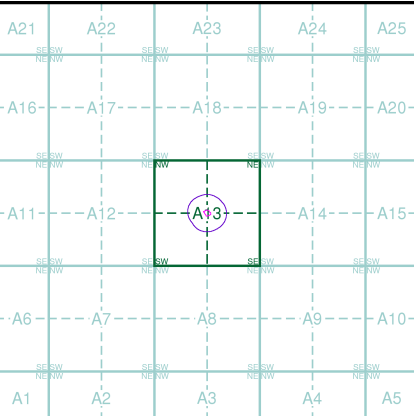
The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SO00NW	SO00NE
2006	2006
1:10,000	1:10,000

SO00SW	SO00SE
2006	2006
1:10,000	1:10,000

Historical Map - Slice A



Order Details

Order Number:	332266288_1_1
Customer Ref:	18167JR
National Grid Reference:	305760, 206280
Slice:	A
Site Area (Ha):	0.12
Search Buffer (m):	1000

Site Details

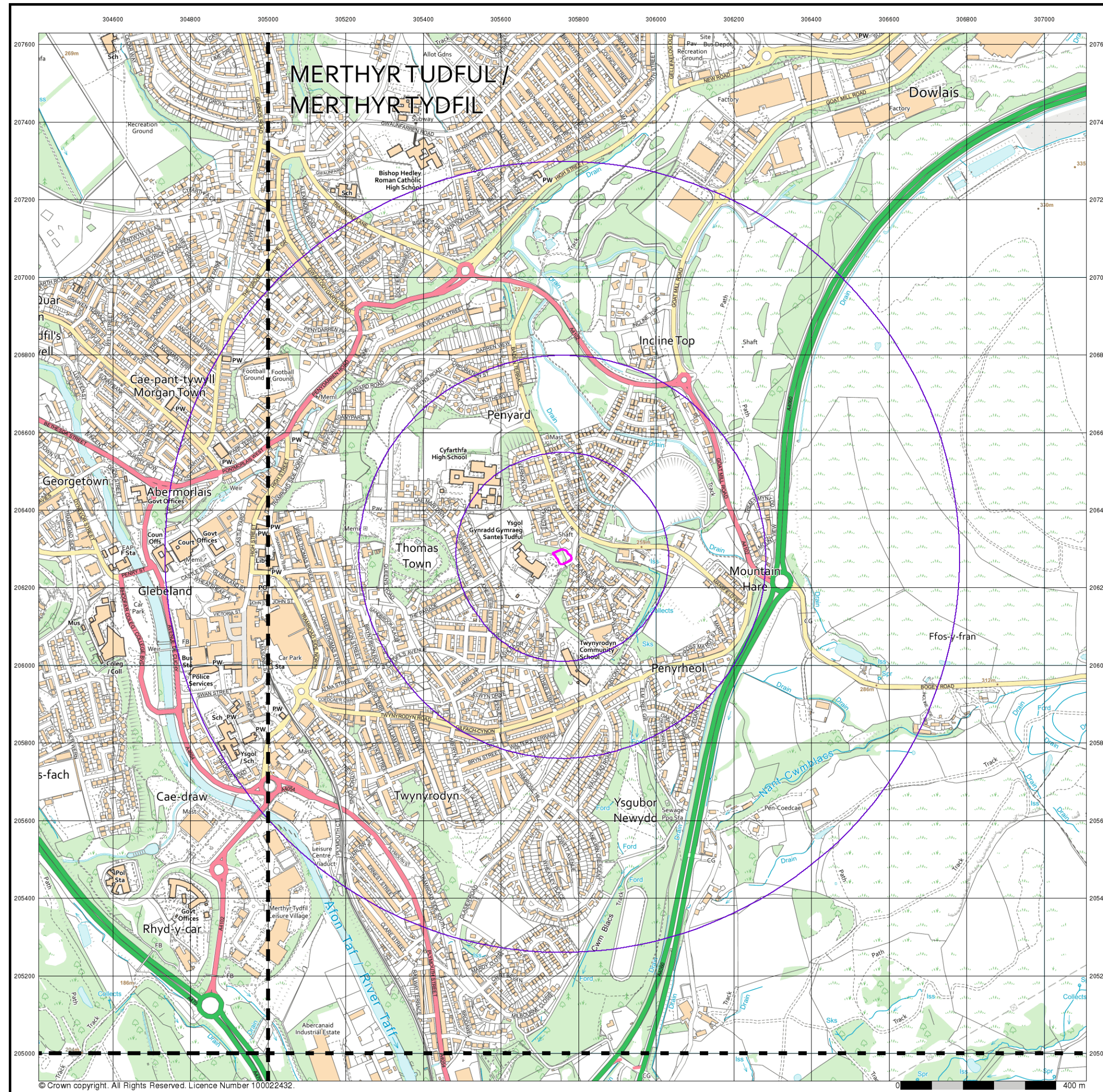
Site at 305760, 206280



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Geotechnical & Geoenvironmental Specialists

VectorMap Local

Published 2023

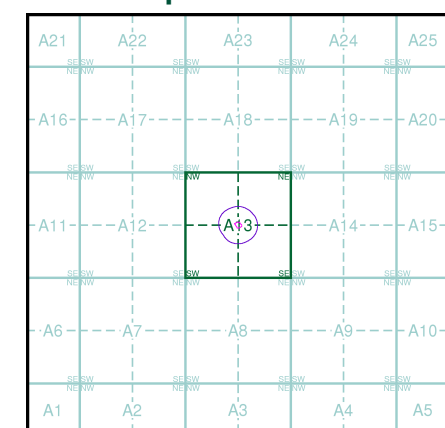
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

SO00NW	SO00NE
2023	2023
Variable	Variable
SO00SW	SO00SE
2023	2023
Variable	Variable

Historical Map - Slice A



Order Details

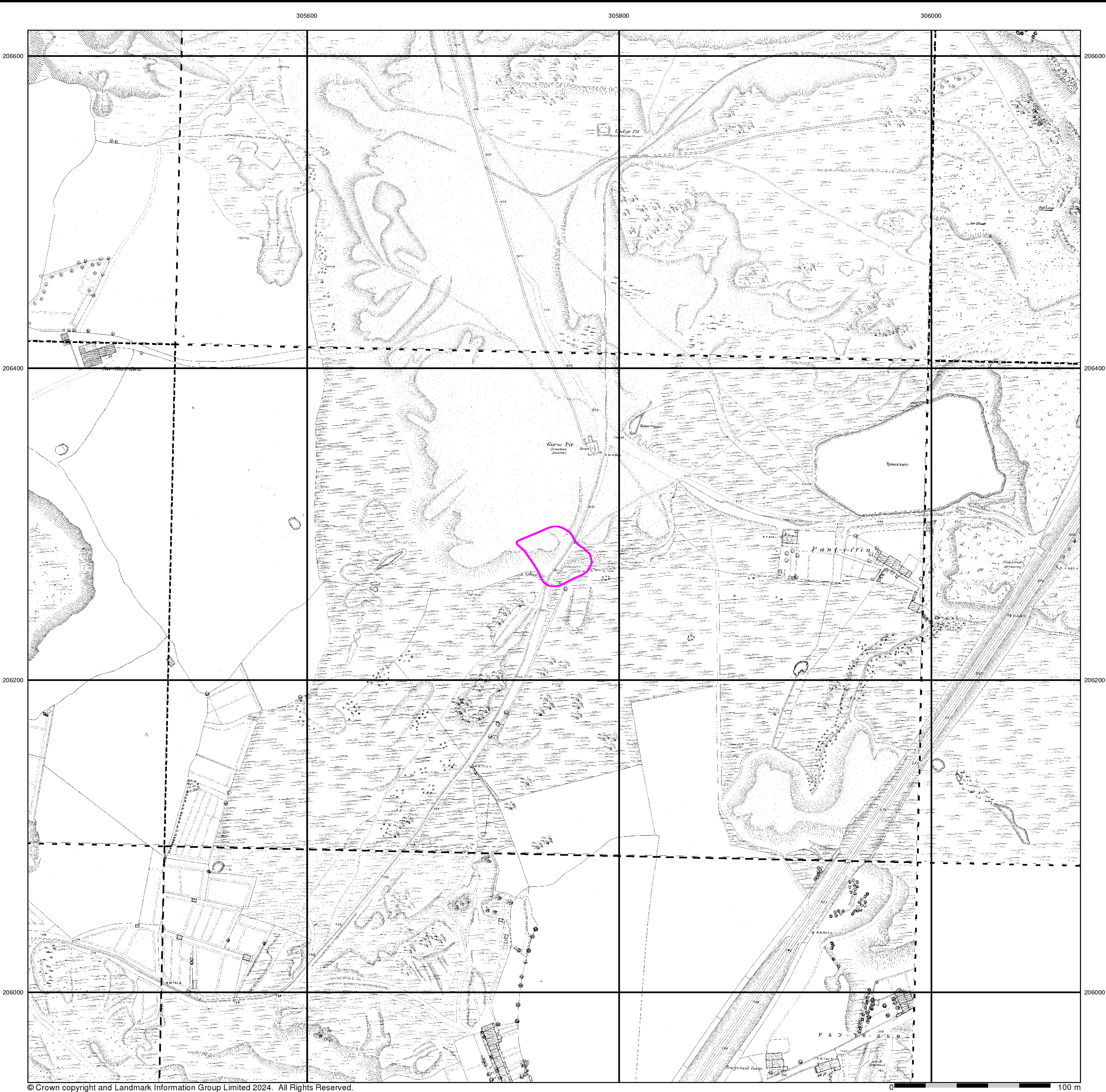
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details

Site at 305760, 206280



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Geotechnical & Geoenvironmental Specialists

Glamorganshire

Published 1875 - 1876

Source map scale - 1:528

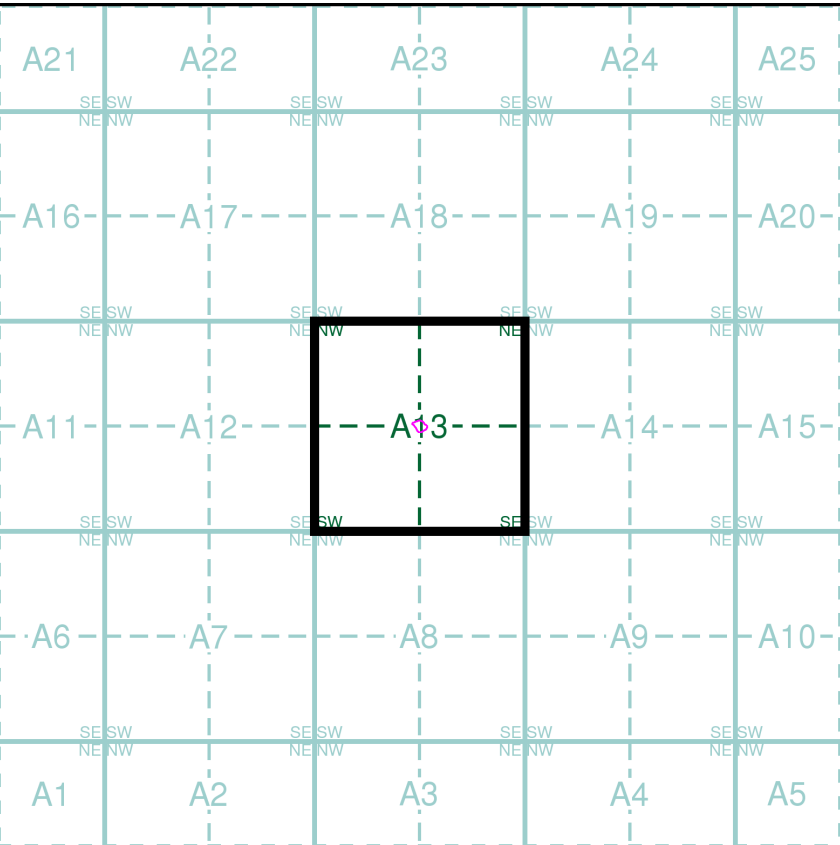
The 1:528 scale Ordnance Survey mapping was adopted in 1850 as an alternative to the 1:1056 scale, that had been deemed to be inadequate for sanitary planning, which had come very much to the fore following the passing of the Public Health Act of 1948. Around 29 towns in England and Wales were surveyed at this scale, the bulk of which were undertaken between 1850 and 1855. These were predominantly towns that were outside the areas being surveyed at 1:10,560 or 1:2500 scale. As well as showing the details characteristic of the later 1:500 plans, they show features of sanitary interest such as privies, taps, cow houses, cess pits, brew and bake houses and cart sheds and stables.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

Map Name(s) and Date(s)

012_01_019	012_01_020	012_02_016
1875	1875	1875
1:528	1:528	1:528
012_01_024	012_01_025	012_02_021
1875	1875	1875
1:528	1:528	1:528
012_05_004	012_05_005	
1875	1875	
1:528	1:528	

Historical Town Plan - Segment A13



Order Details

Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 0

Site Details

Site at 305760, 206280

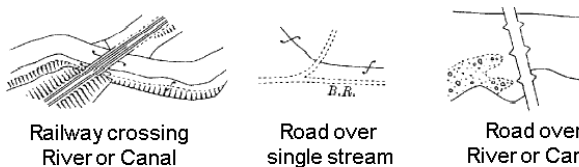
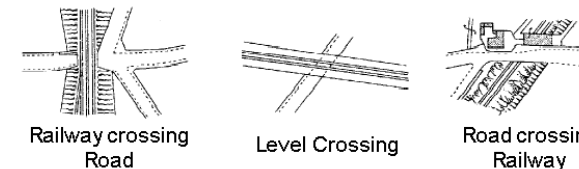


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Ordinance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information

	Quarry		Gravel Pit		Sand Pit
	Clay Pit		Shingle		Refuse Heap
	Sloping Masonry		Flat Rock		
	Marsh		Reeds		Osiers
	Rough Pasture		Furze		Wood
	Mixed Wood		Brushwood		Orchard
	Fir		Ford		Stepping Stones
	Ferry		Waterfall		Lock

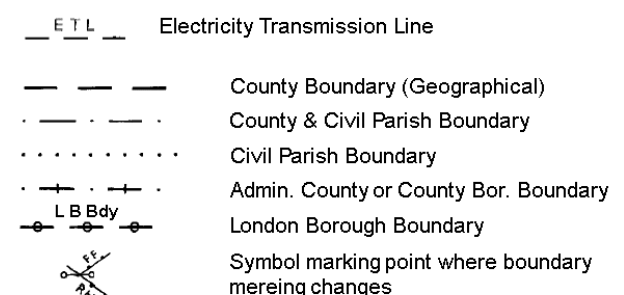
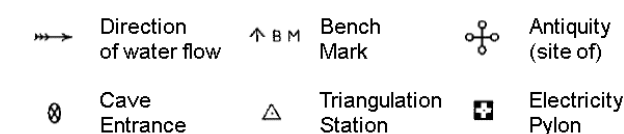
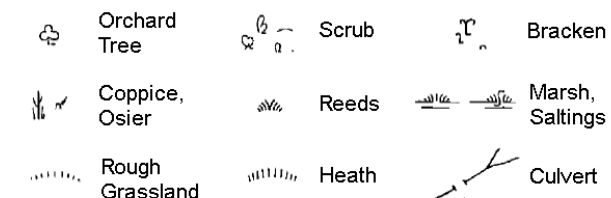
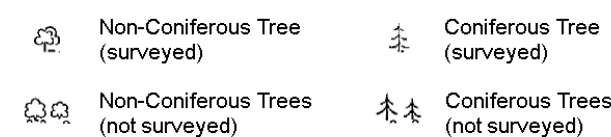
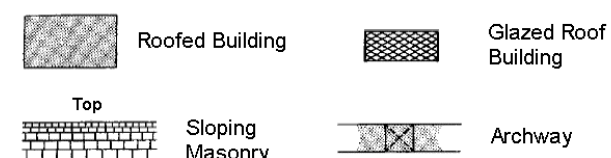
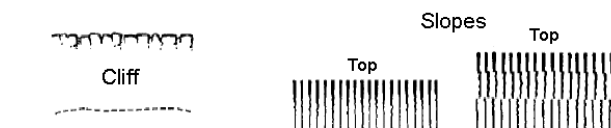
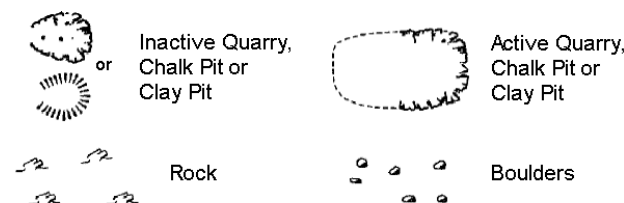
	Trig. Station	507 	Altitude at Trig. Station
<i>B.M.</i> 325.9 	Bench Mark	342 +	Surface Level
	Arrow denotes flow direction		Antiquities (site of)



-----	County Boundary (Geographical)
- . - . - .	County & Civil Parish Boundary
+ . + . + .	Administrative County & Civil Parish Boundary
Co. Boro. Bdy.	County Borough Boundary (England)
Co. Burgh Bdy.	County Burgh Boundary (Scotland)

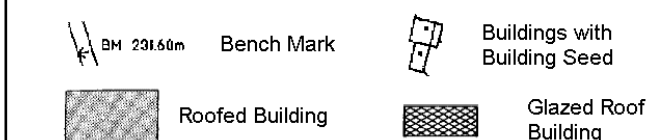
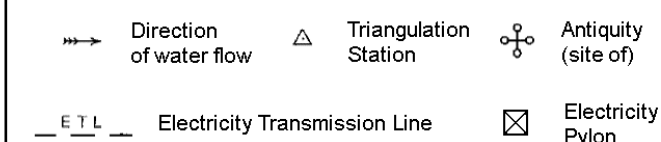
<i>B.P.B.S.</i>	Boundary Post or Stone	<i>P.C.B.</i>	Police Call Box
<i>B.R.</i>	Bridle Road	<i>P.</i>	Pump
<i>E.P.</i>	Electricity Pylon	<i>S.P.</i>	Signal Post
<i>F.B.</i>	Foot Bridge	<i>Sl.</i>	Sluice
<i>F.P.</i>	Foot Path	<i>Sp.</i>	Spring
<i>G.P.</i>	Guide Post or Board	<i>T.C.B.</i>	Telephone Call Box
<i>M.S.</i>	Mill Stone	<i>Tr.</i>	Trough
<i>M.P.M.R.</i>	Mooring Post or Ring	<i>W.</i>	Well

Ordinance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information



BH	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
EI P	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
H	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

Slopes		Top	
	Cliff		Rock
	Boulders		Scree
	Positioned Boulder		Non-Coniferous Tree (surveyed)
	Non-Coniferous Trees (not surveyed)		Coniferous Tree (surveyed)
	Orchard Tree		Coniferous Trees (not surveyed)
	Scrub		Bracken
	Coppice, Osier		Reeds
	Marsh, Saltings		Rough
	Heath		Culvert



• • • • •	Civil parish/community boundary
— — — — —	District boundary
— • — — —	County boundary
o	Boundary post/stone
	Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)

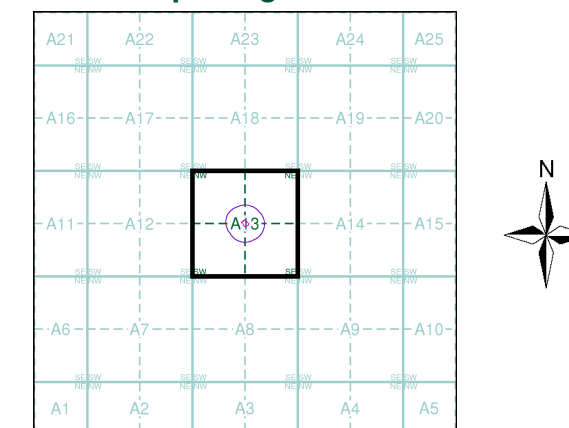
Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Ppg Sta	Pumping Station
Dismtd Rly	Dismantled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge
El Sub Sta	Electricity Sub Station	SP, SL	Signal Post or Light
FB	Filter Bed	Spr	Spring
Fn / D Fn	Fountain / Drinking Ftn.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governor	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Page
Glamorganshire	1:2,500	1875 - 1882	2
Glamorganshire	1:2,500	1900	3
Brecknockshire	1:2,500	1904	4
Glamorganshire	1:2,500	1919	5
Brecknockshire	1:2,500	1919	6
Ordnance Survey Plan	1:1,250	1957	7
Ordnance Survey Plan	1:2,500	1958 - 1964	8
Ordnance Survey Plan	1:1,250	1969 - 1977	9
Supply of Unpublished Survey Information	1:2,500	1975	10
Supply of Unpublished Survey Information	1:1,250	1975	11
Additional SIMs	1:1,250	1982 - 1989	12
Ordnance Survey Plan	1:1,250	1984	13
Additional SIMs	1:1,250	1987 - 1989	14
Additional SIMs	1:2,500	1988	15
Additional SIMs	1:1,250	1989	16
Additional SIMs	1:2,500	1992	17
Large-Scale National Grid Data	1:2,500	1993	18
Large-Scale National Grid Data	1:1,250	1993	19
Large-Scale National Grid Data	1:2,500	1993	20
Large-Scale National Grid Data	1:1,250	1994 - 1995	21
Large-Scale National Grid Data	1:1,250	1995	22
Large-Scale National Grid Data	1:1,250	1996	23
Large-Scale National Grid Data	1:1,250	1996	24
Large-Scale National Grid Data	1:1,250	1996	25
Historical Aerial Photography	1:2,500	2000	26

Historical Map - Segment A13



Order Details

Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280

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Glamorganshire

Published 1875 - 1882

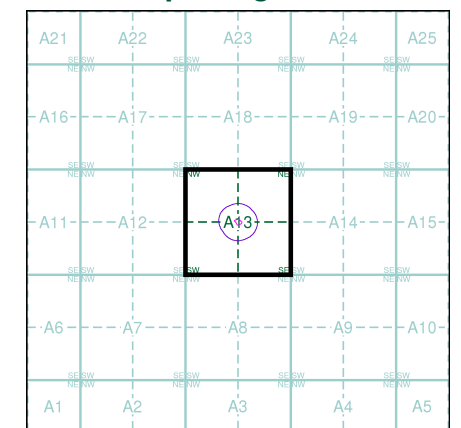
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

012_01 1875 1:2,500	012_02 1882 1:2,500
012_05 1876 1:2,500	012_06 1876 1:2,500

Historical Map - Segment A13



Order Details

Order Number: 332266288_1_1
Customer Ref: 18167JR
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Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

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Site at 305760, 206280



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Geotechnical & Geoenvironmental Specialists

Glamorganshire

Published 1900

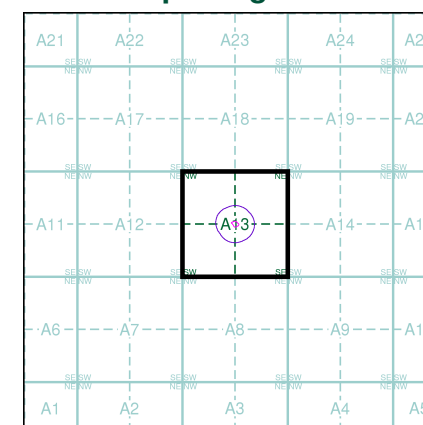
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

012_01 1900 1:2,500	012_02 1900 1:2,500
012_05 1900 1:2,500	012_06 1900 1:2,500

Historical Map - Segment A13



Order Details

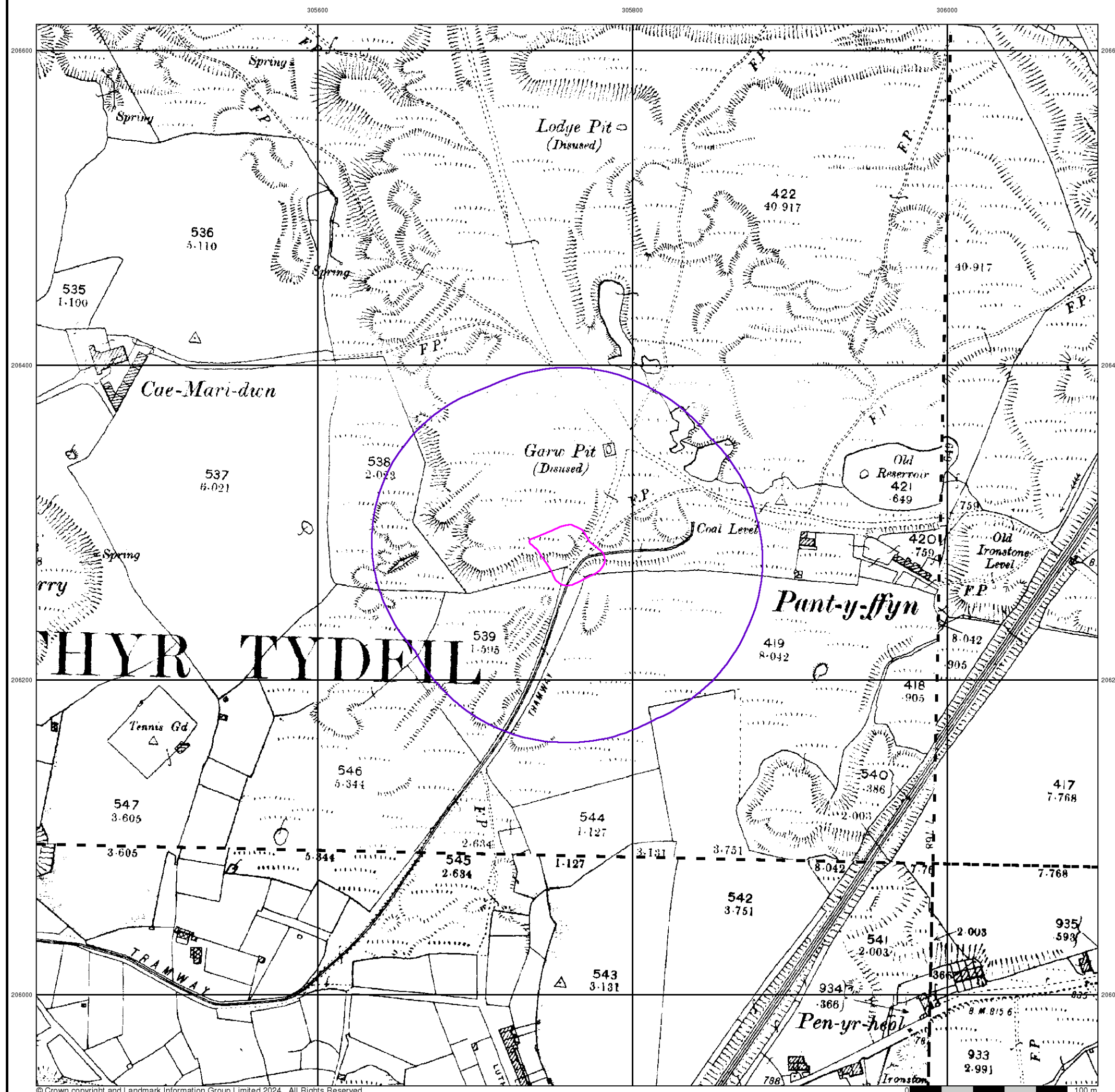
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

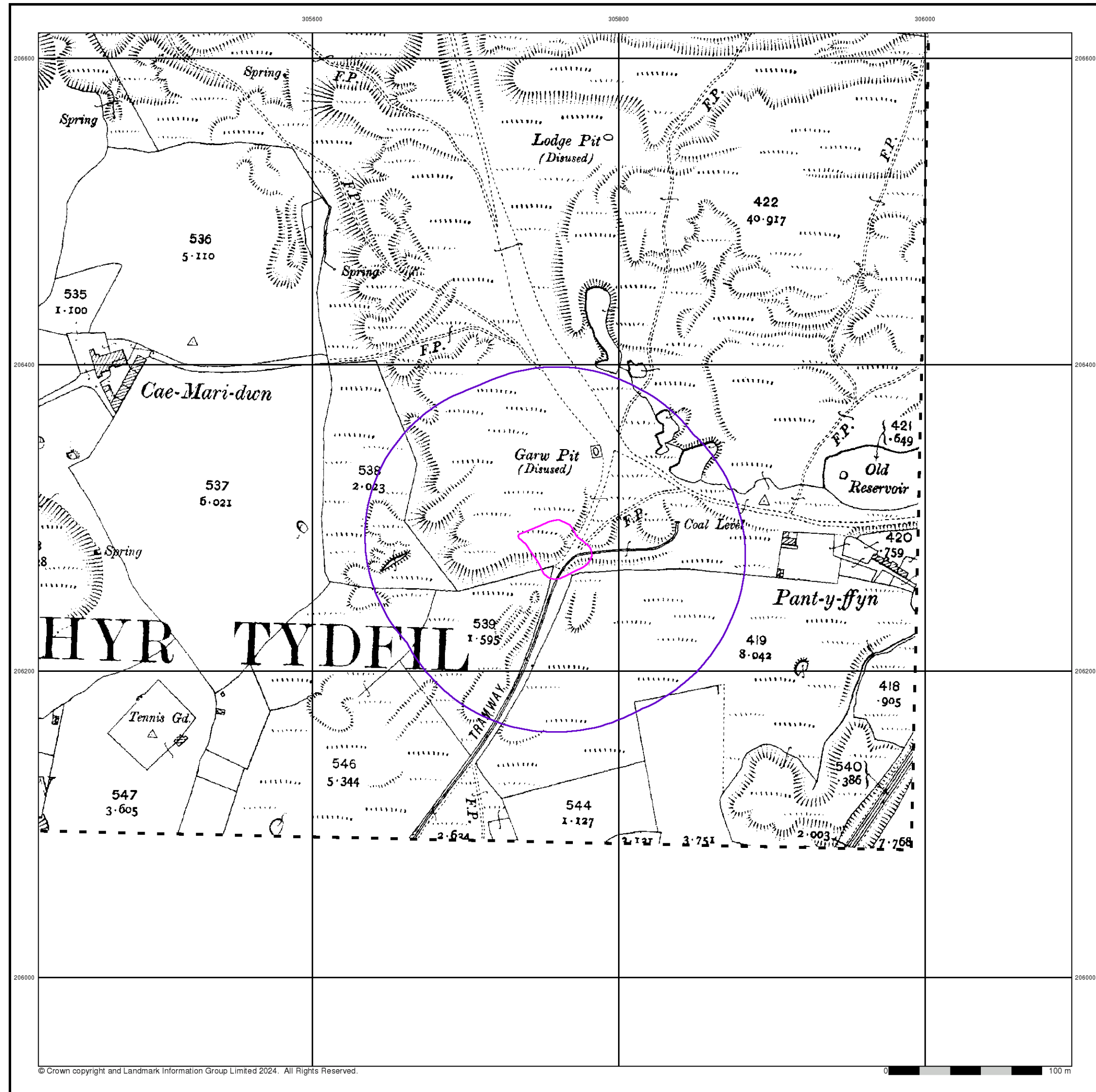
Site Details

Site at 305760, 206280

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Brecknockshire

Published 1904

Source map scale - 1:2,500

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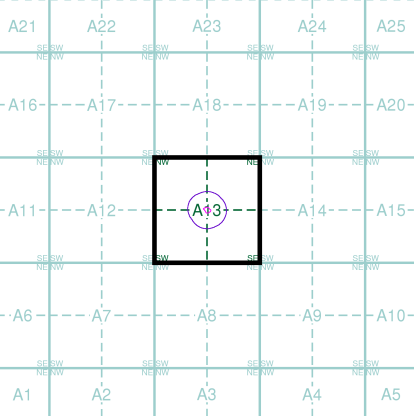
Map Name(s) and Date(s)

051_01

1904

1:2,500

Historical Map - Segment A13



Order Details

Order Number:	332266288_1_1
Customer Ref:	18167JR
National Grid Reference:	305760, 206280
Slice:	A
Site Area (Ha):	0.12
Search Buffer (m):	100

Site Details

Site at 305760, 206280



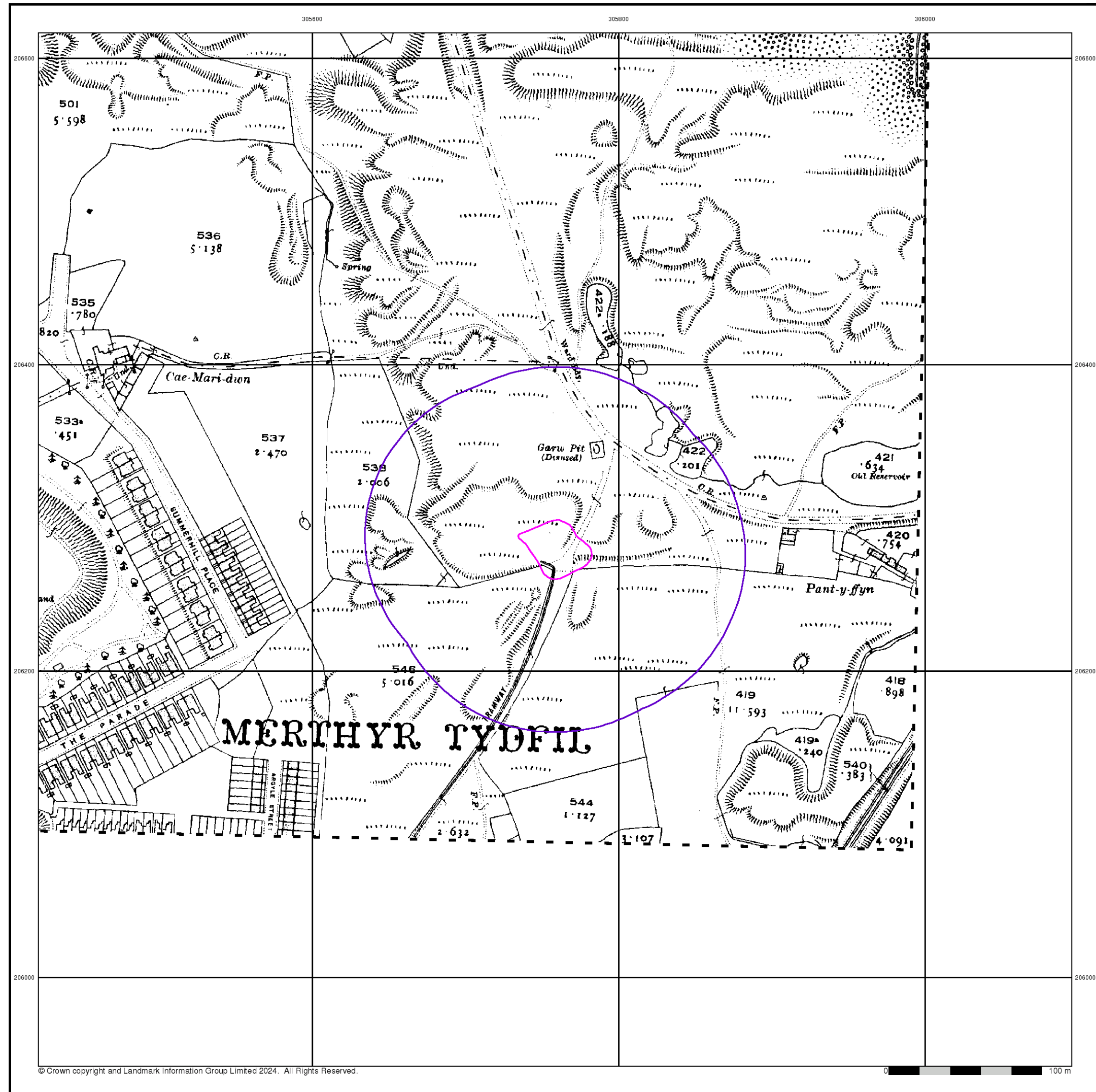
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Brecknockshire

Published 1919

Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

051_01

1919

1:2,500

Historical Map - Segment A13

A21A22A23A24A25

A16A17A18A19A20

A11A12A13A14A15

A6A7A8A9A10

A1A2A3A4A5



Order Details

Order Number:	332266288_1_1
Customer Ref:	18167JR
National Grid Reference:	305760, 206280
Slice:	A
Site Area (Ha):	0.12
Search Buffer (m):	100

Site Details

Site at 305760, 206280



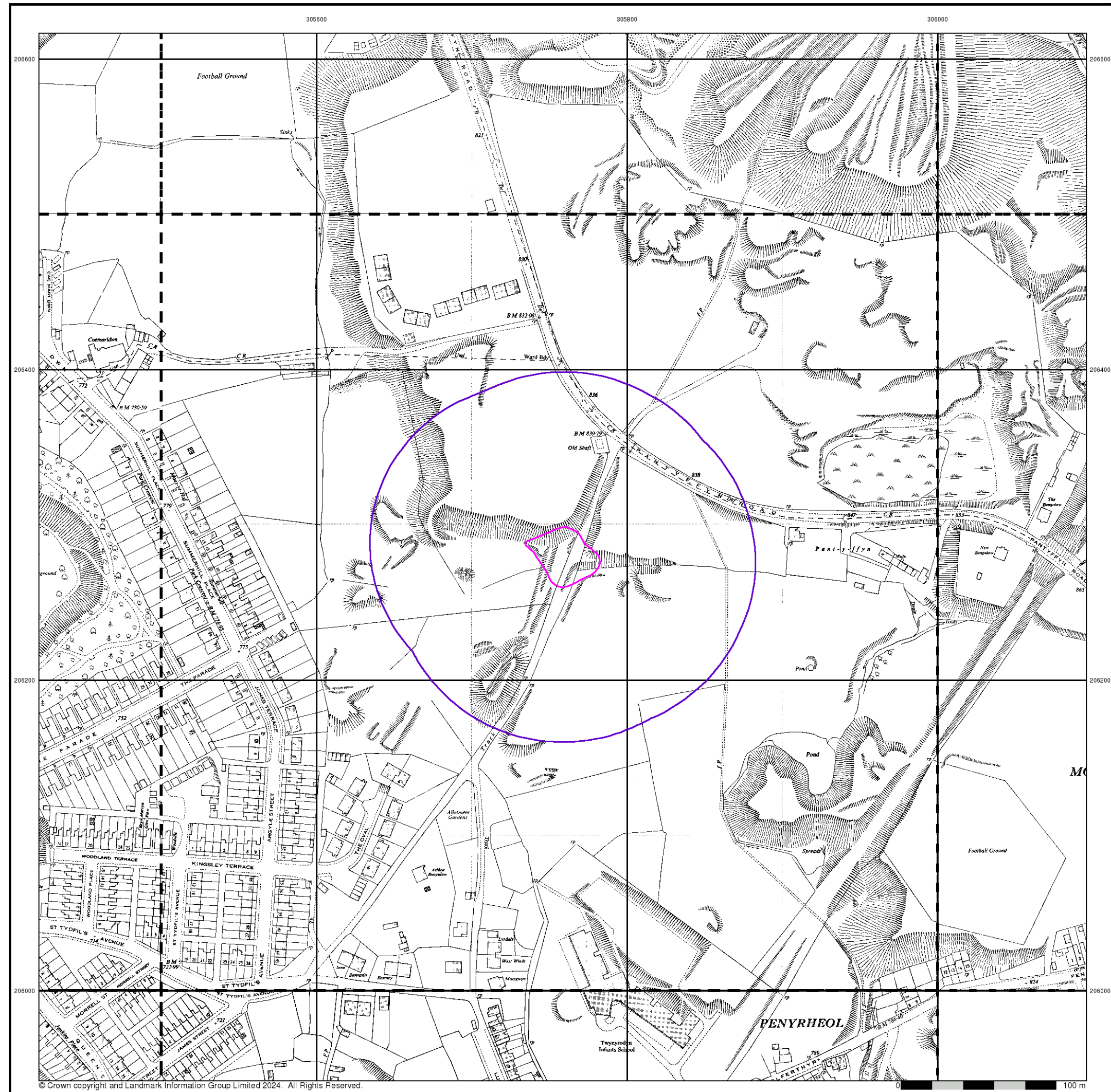
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Ordnance Survey Plan

Published 1957

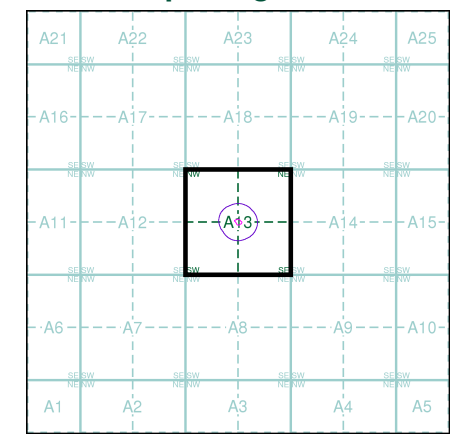
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

00506NW	00506NE	00606NW
1957	1957	1957
1:1,250	1:1,250	1:1,250
00506SW	00506SE	00606SW
1957	1957	1957
1:1,250	1:1,250	1:1,250
00505NW	00505NE	
1957	1957	
1:1,250	1:1,250	

Historical Map - Segment A13



Order Details

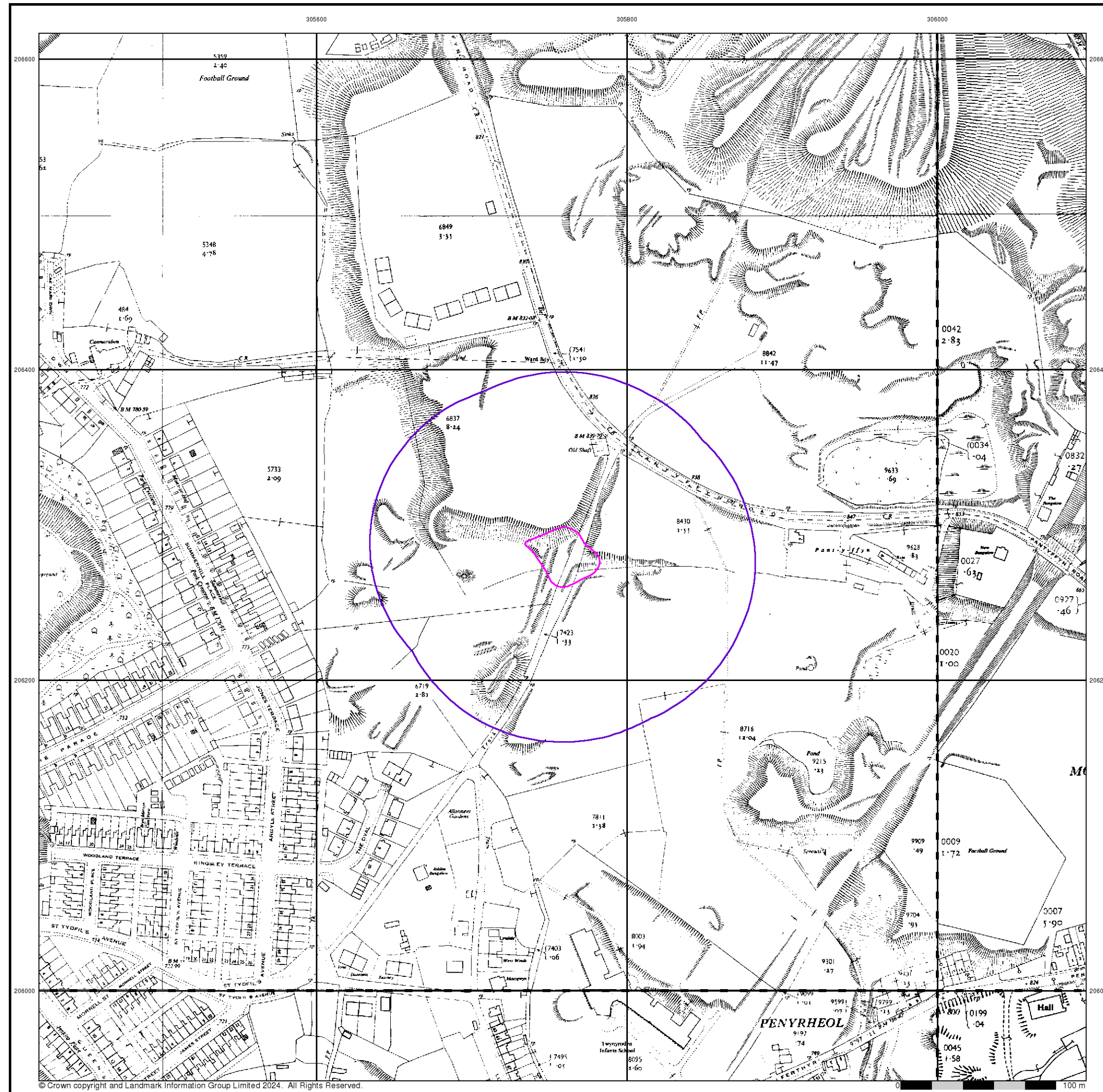
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280



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Ordnance Survey Plan

Published 1958 - 1964

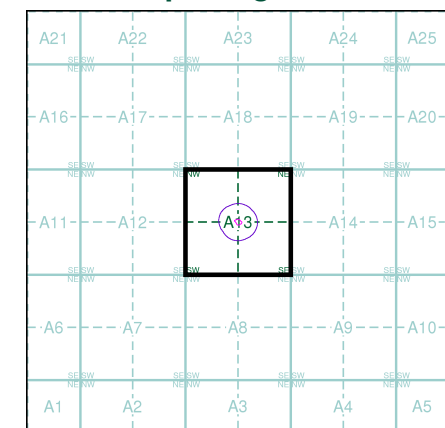
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SO0506 1958 12,500	SO0606 1963 12,500
SO0505 1958 12,500	SO0605 1964 12,500

Historical Map - Segment A13



Order Details

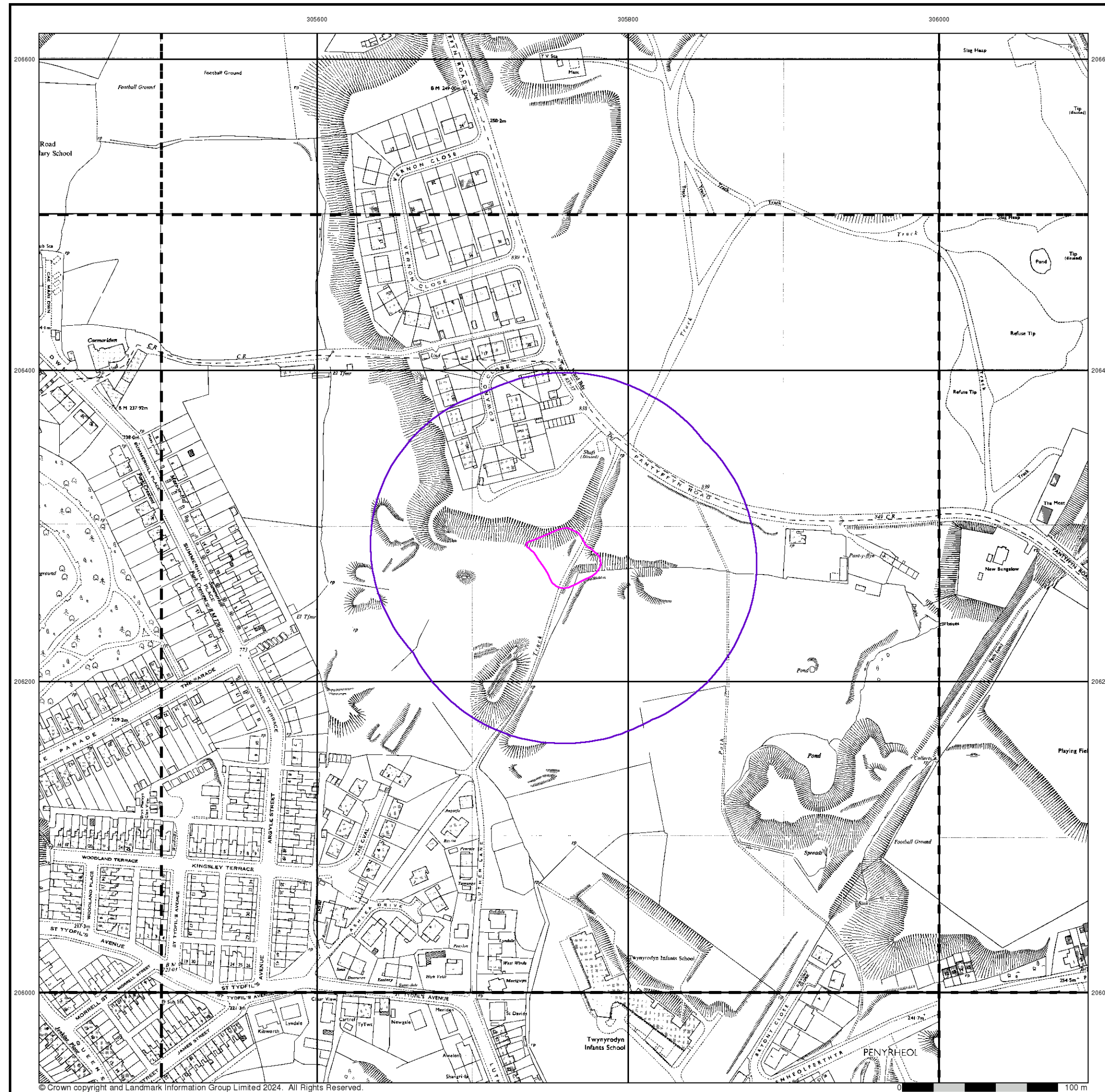
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280



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Ordnance Survey Plan

Published 1969 - 1977

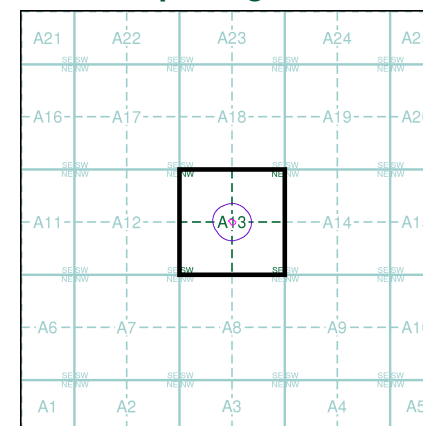
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

00506NW	00506NE	00506NW
1969	1972	1973
1:1,250	1:1,250	1:1,250
00506SW	00506SE	00506SW
1977	1969	1973
1:1,250	1:1,250	1:1,250
00505NW	00505NE	
1969	1973	
1:1,250	1:1,250	

Historical Map - Segment A13



Order Details

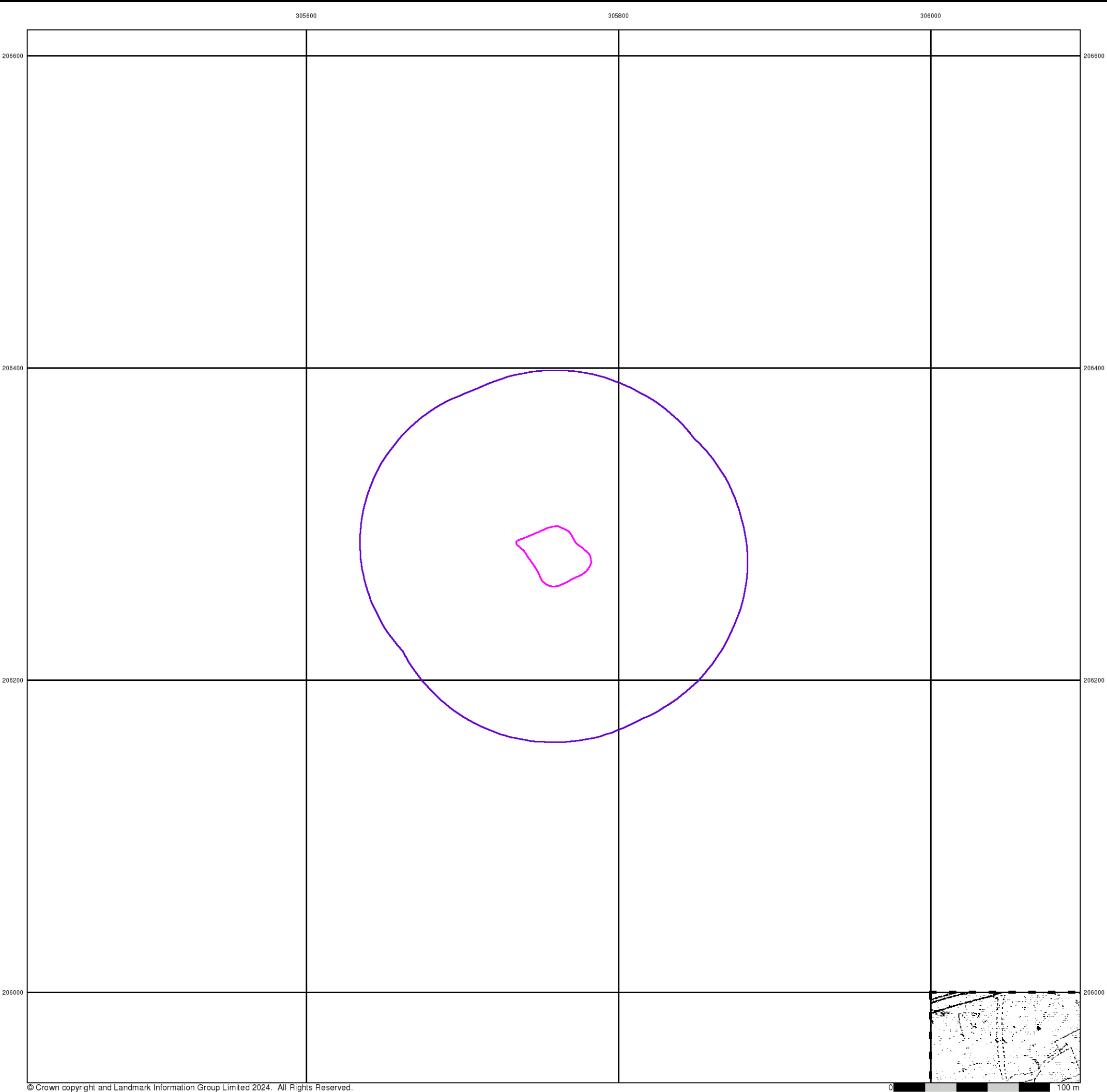
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

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0 100 m



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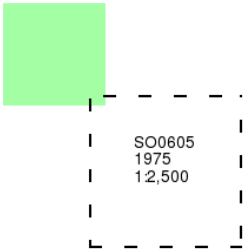
Supply of Unpublished Survey Information

Published 1975

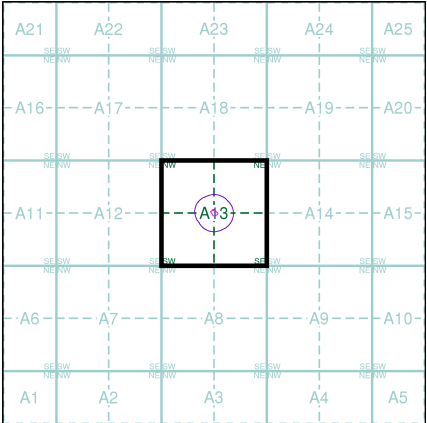
Source map scale - 1:2,500

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

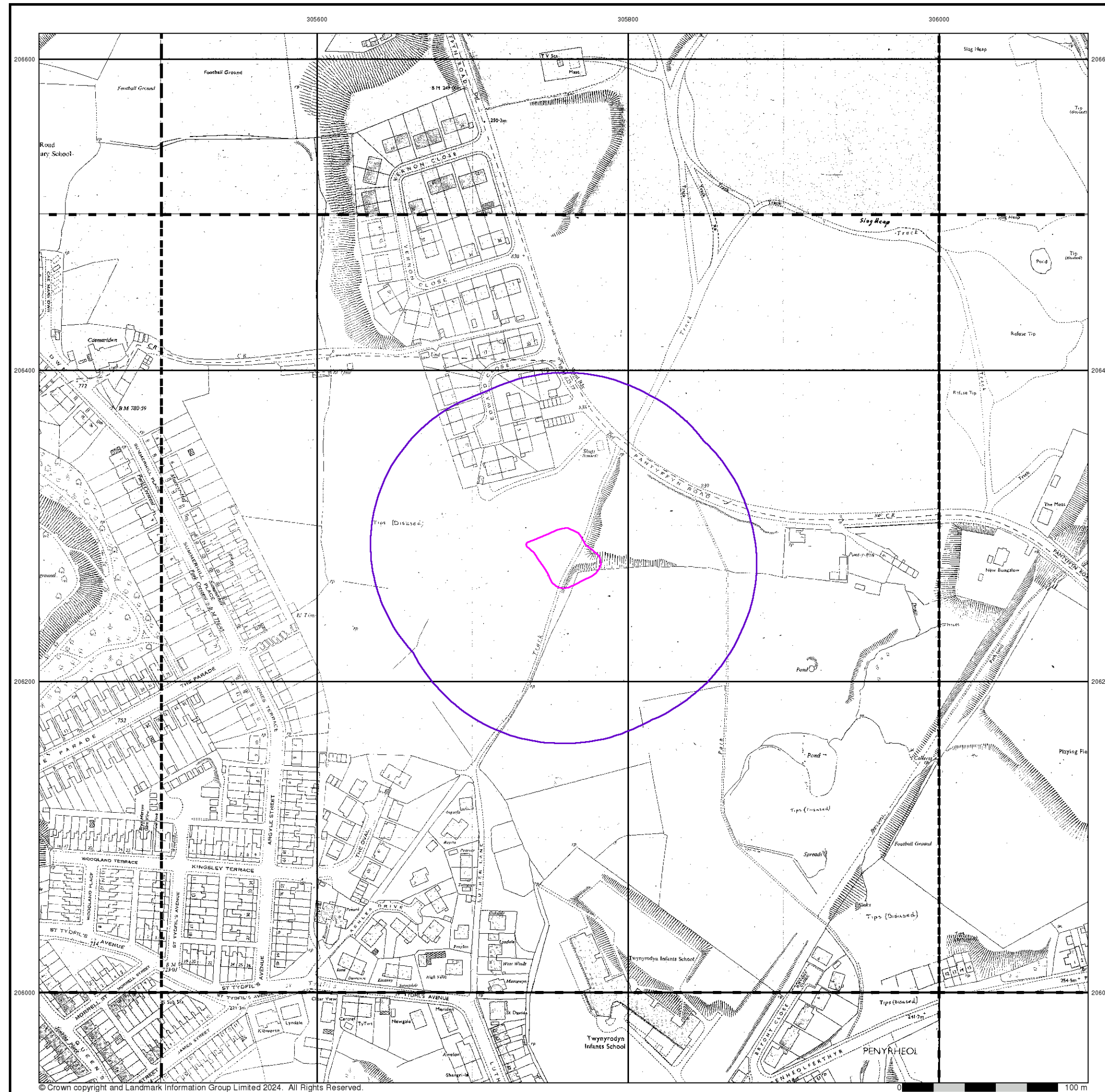
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280



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Supply of Unpublished Survey Information

Published 1975

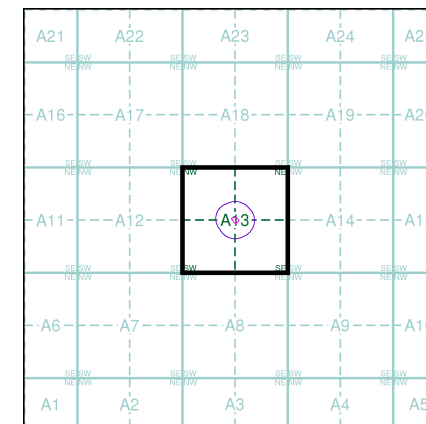
Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SO0508NW	SO0506NE	SO0608NW
1975	1975	1975
1:1,250	1:1,250	1:1,250
SO0508SW	SO0506SE	SO0608SW
1975	1975	1975
1:1,250	1:1,250	1:1,250
SO0505NW	SO0505NE	
1975	1975	
1:1,250	1:1,250	

Historical Map - Segment A13



Order Details

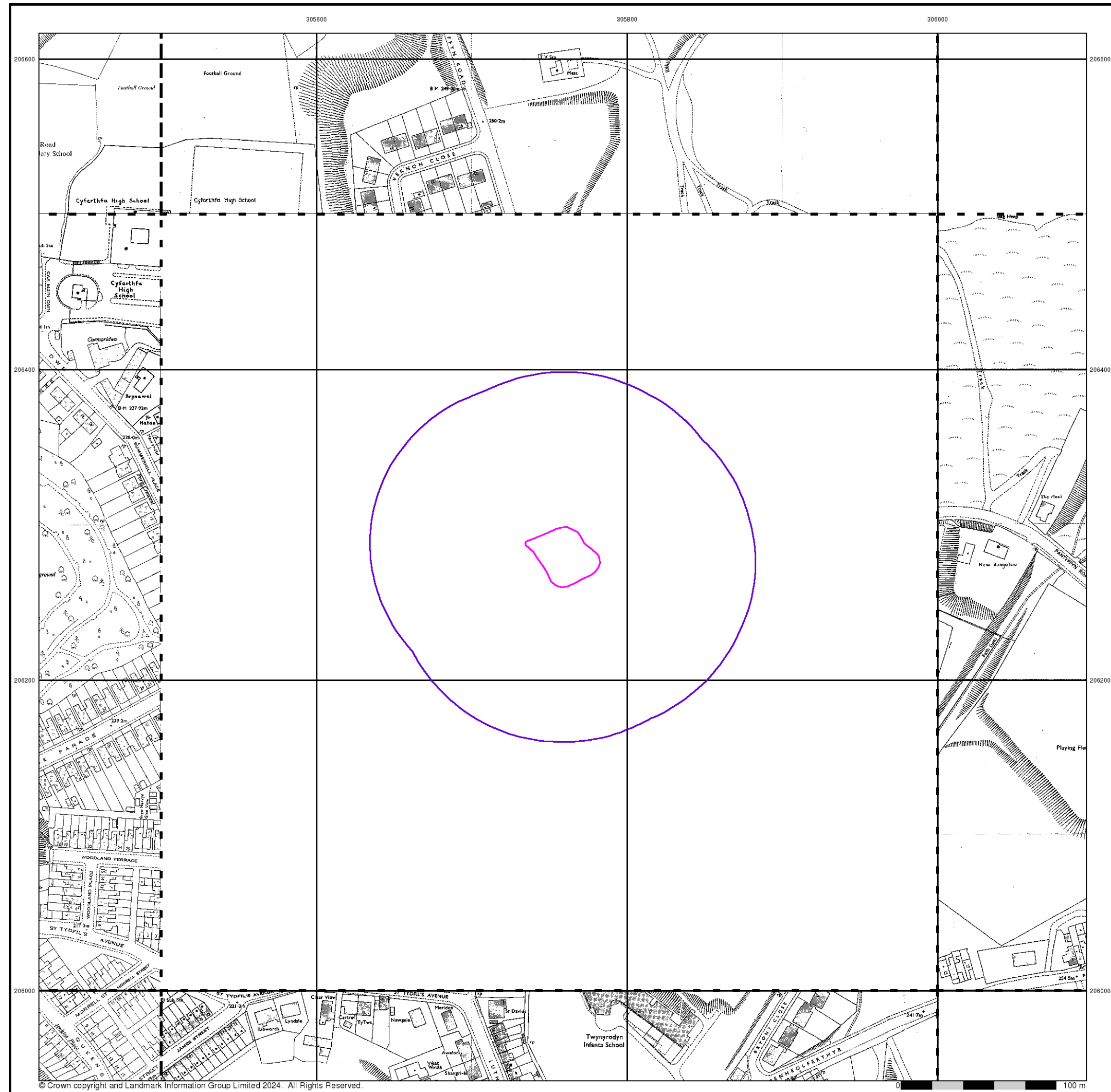
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280



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Additional SIMs

Published 1982 - 1989

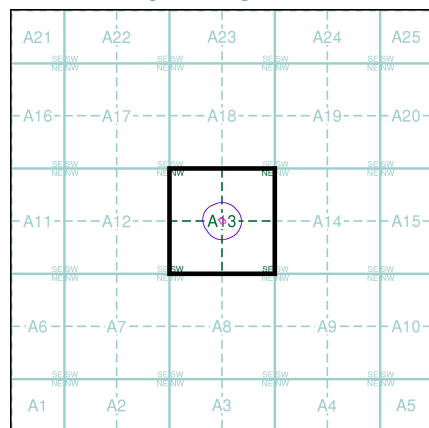
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SO0506NW	SO0506NE
1982	1989
1:1,250	1:1,250
SO0506SW	SO0606SW
1989	1989
1:1,250	1:1,250
SO0505NW	SO0505NE
1984	1989
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

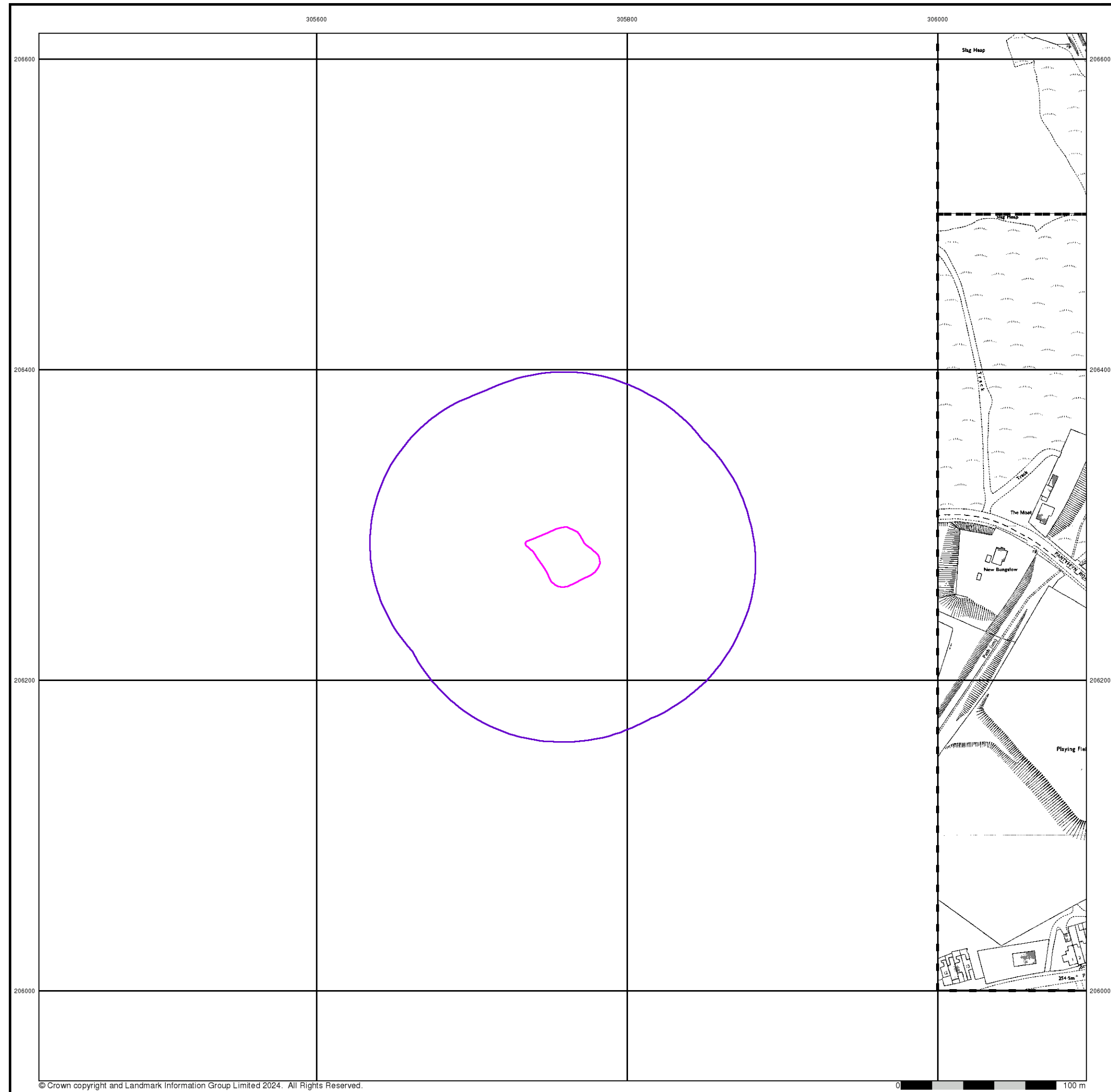
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280



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Ordnance Survey Plan

Published 1984

Source map scale - 1:1,250

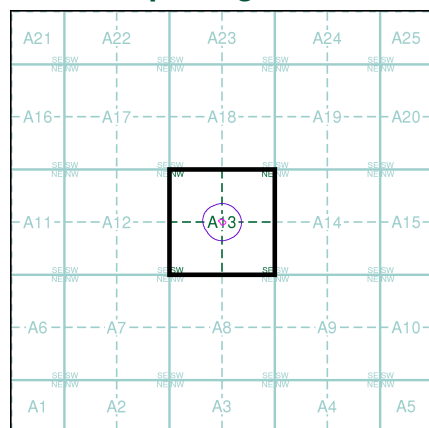
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SO0606NW
1984
1:1,250

SO0606SW
1984
1:1,250

Historical Map - Segment A13



Order Details

Order Number:	332266288_1_1
Customer Ref:	18167JR
National Grid Reference:	305760, 206280
Slice:	A
Site Area (Ha):	0.12
Search Buffer (m):	100

Site Details

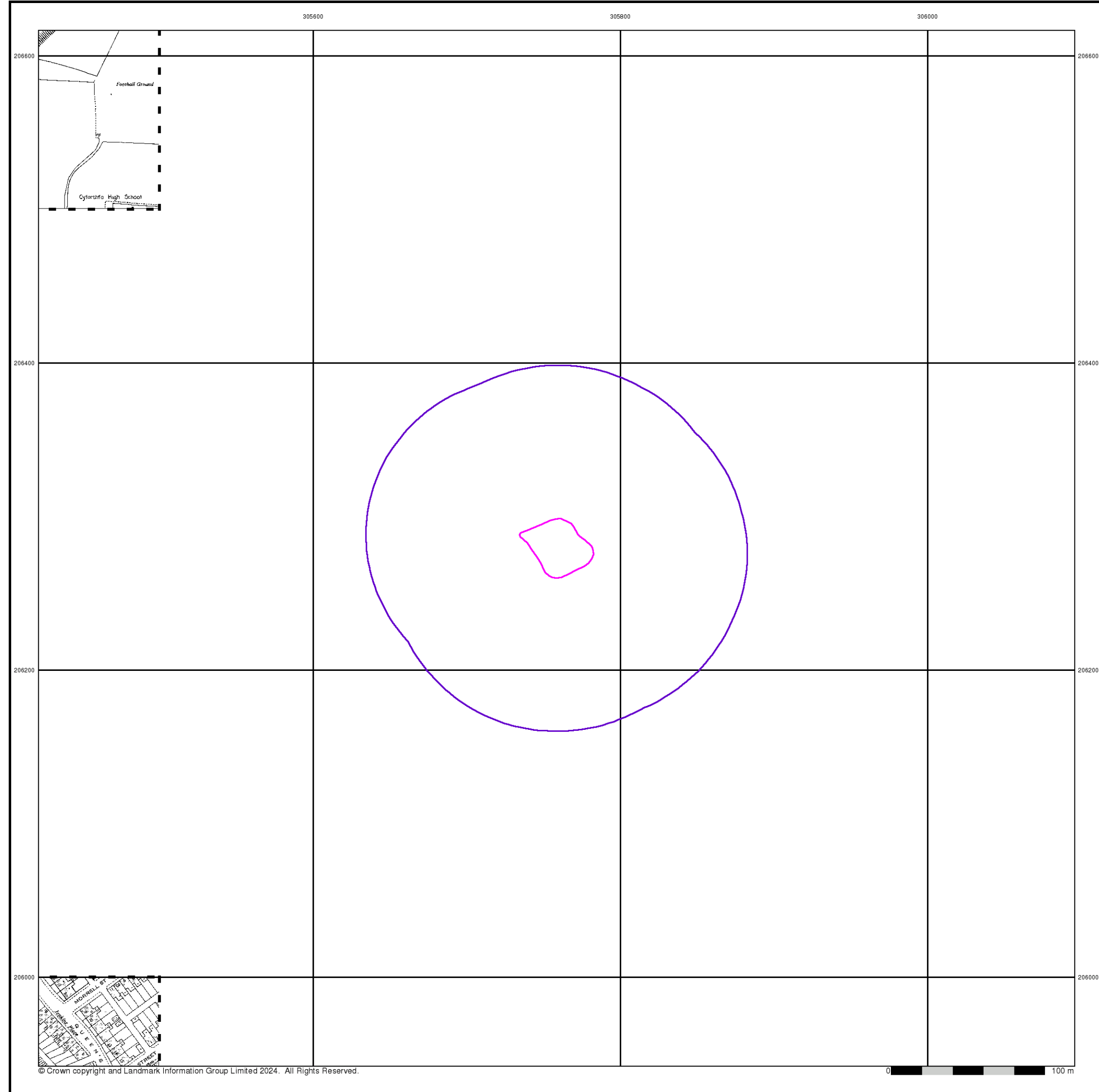
Site at 305760, 206280



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Additional SIMs

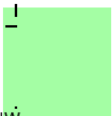
Published 1987 - 1989

Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

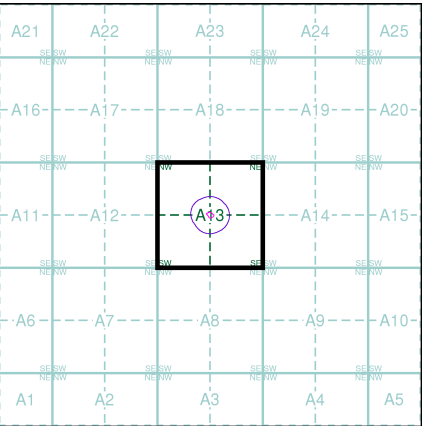
Map Name(s) and Date(s)

00506NW
987
1:1,250



00505NW
989
1:1,250

Historical Map - Segment A13



Order Details

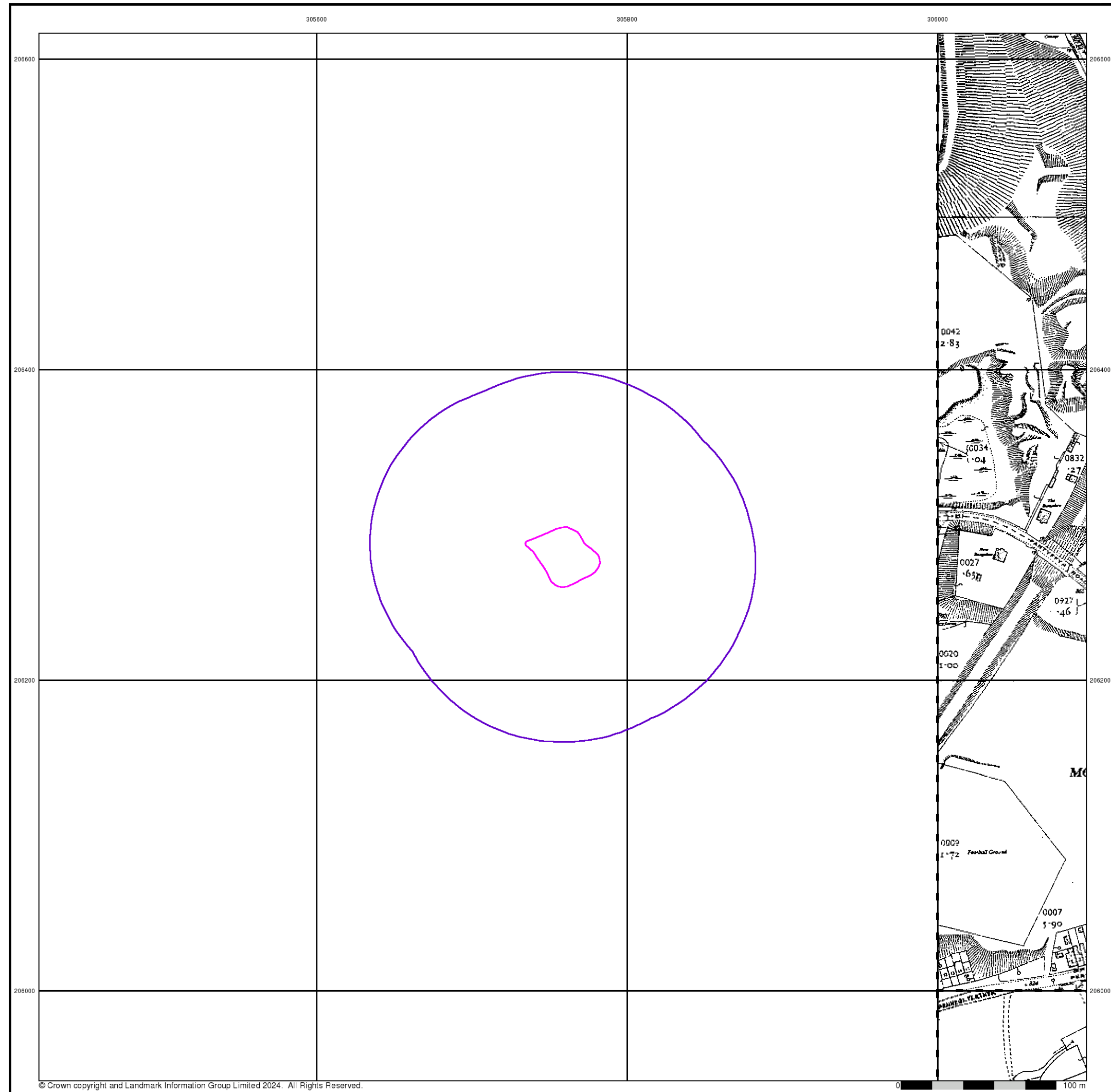
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280



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Additional SIMs

Published 1988

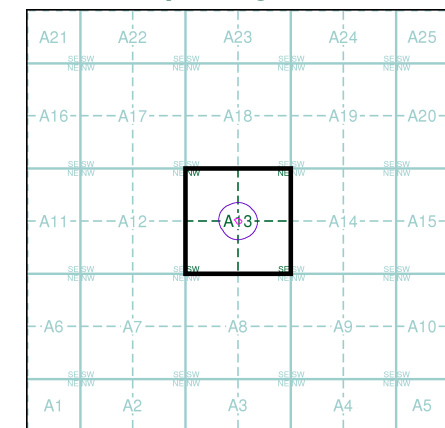
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SO0606
1988
1:2,500
SO0605
1988
1:2,500

Historical Map - Segment A13



Order Details

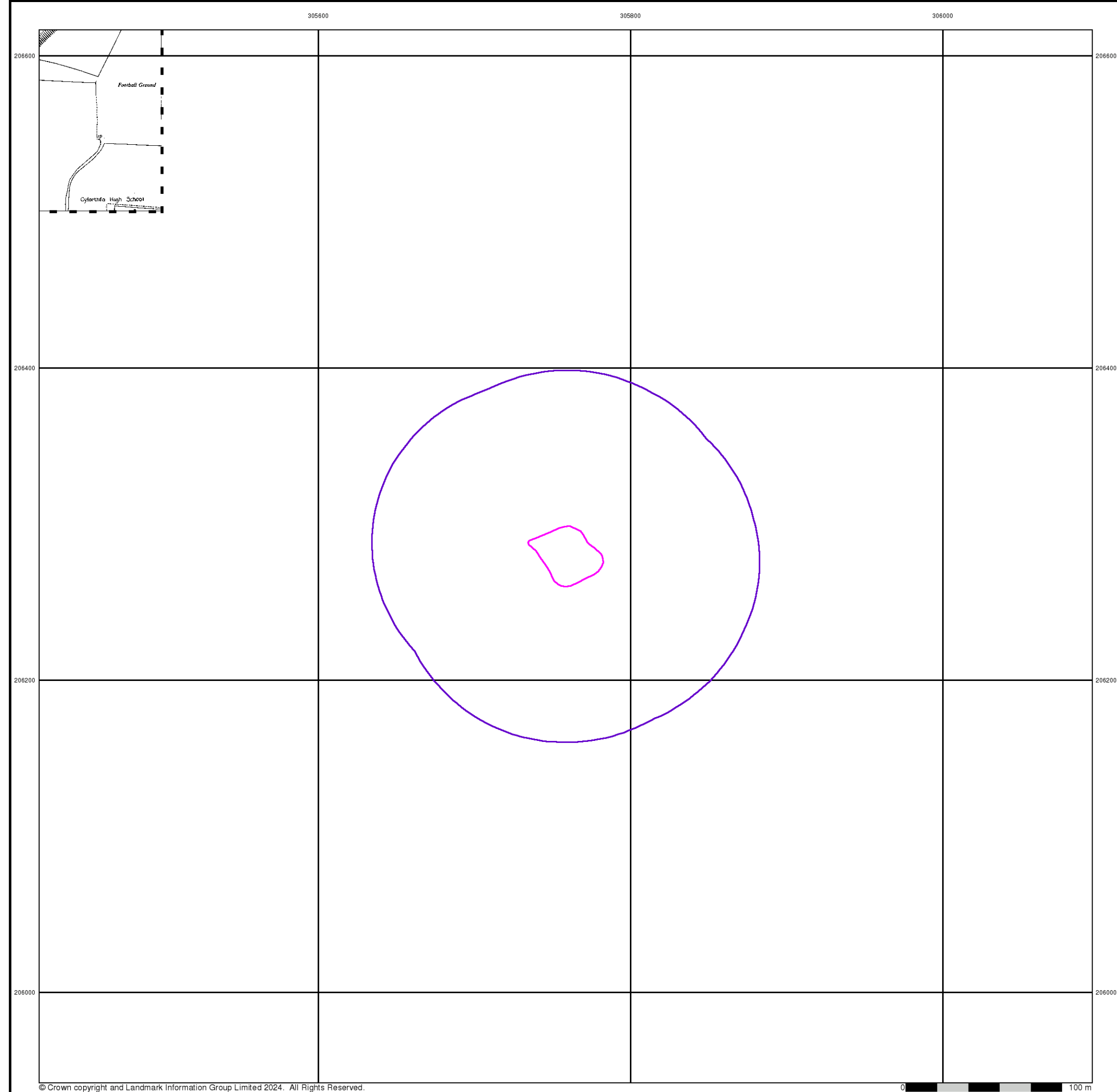
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
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Site Details

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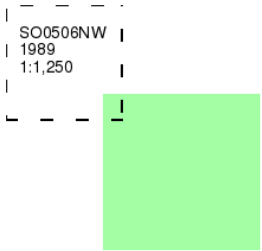
Additional SIMs

Published 1989

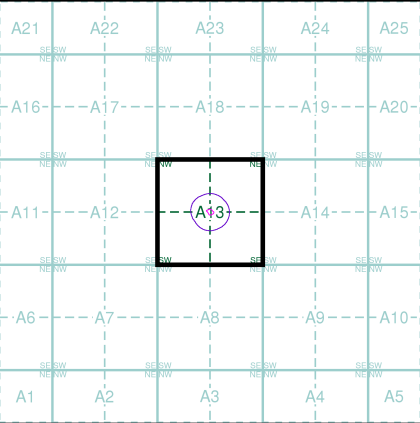
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

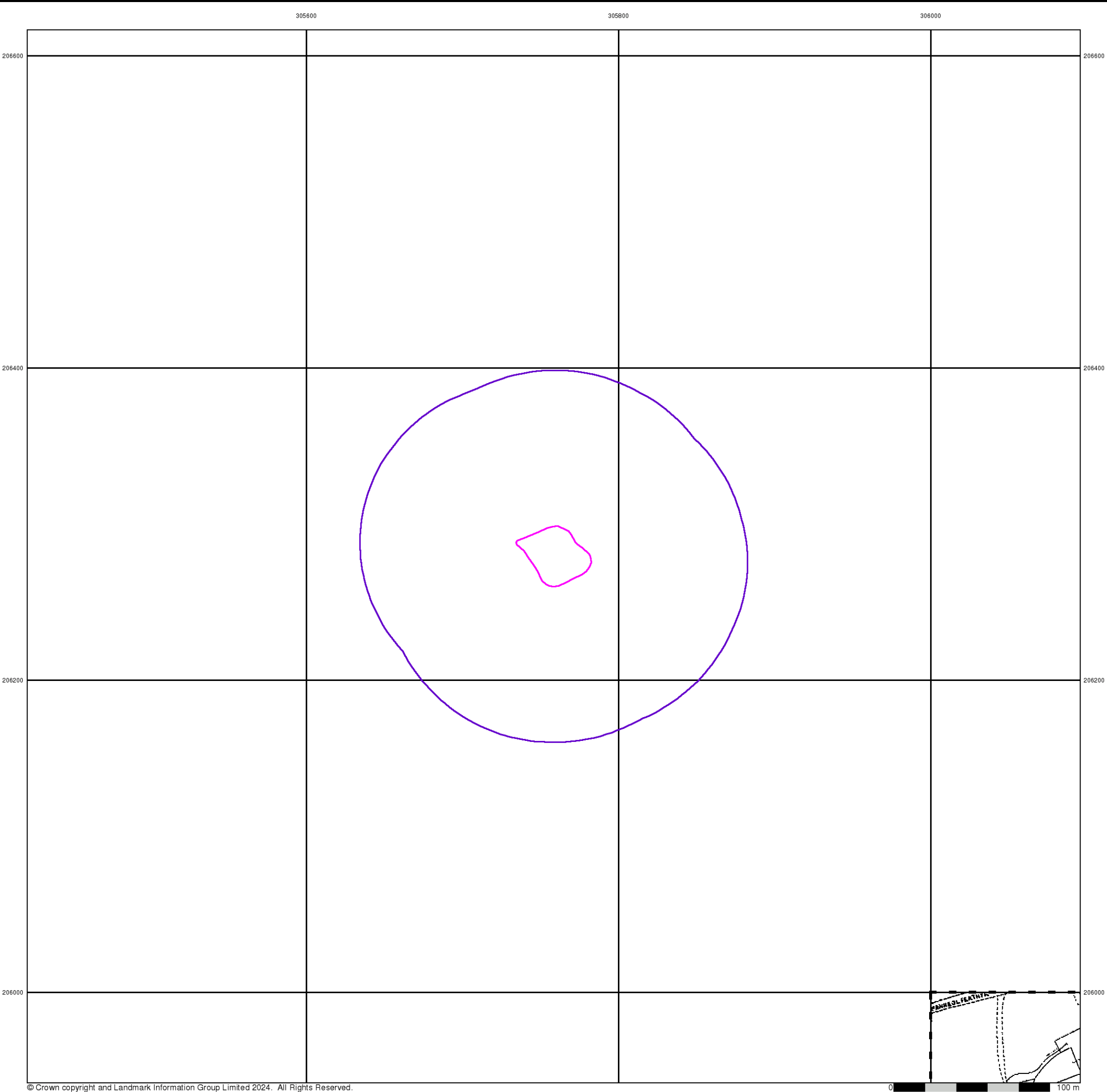
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Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

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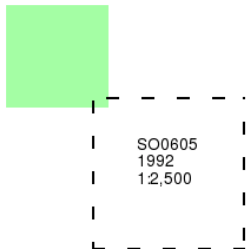
Additional SIMs

Published 1992

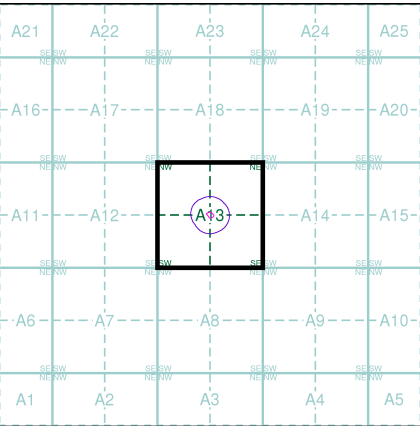
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

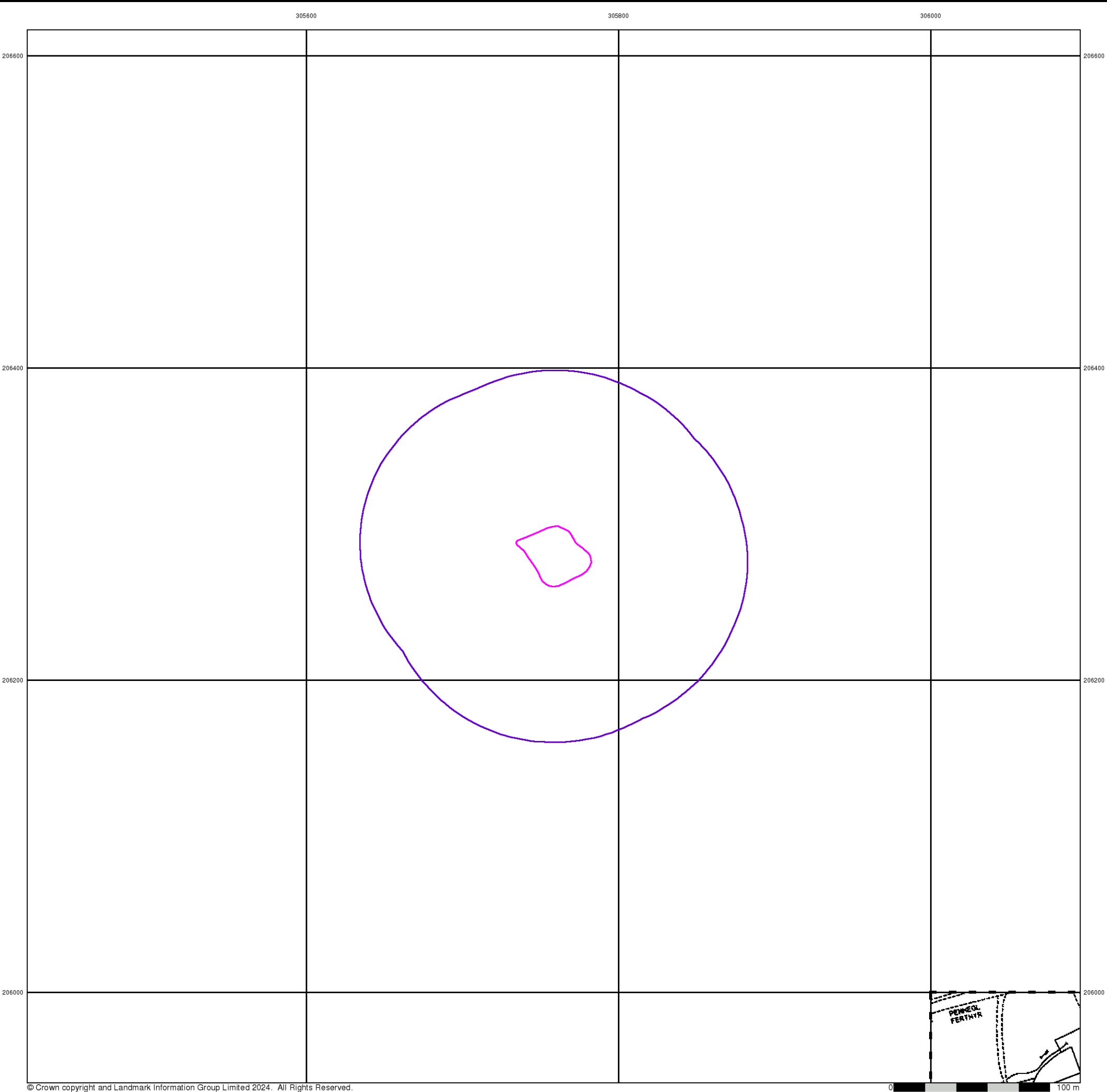
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Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280



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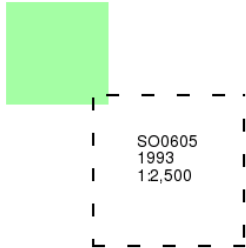
Large-Scale National Grid Data

Published 1993

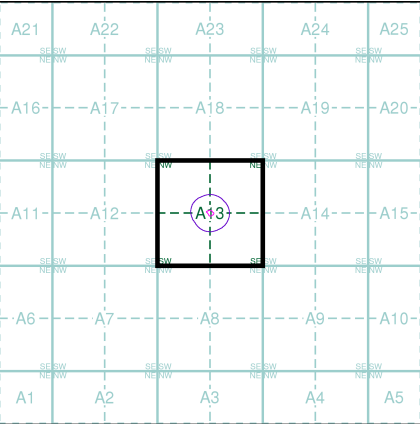
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

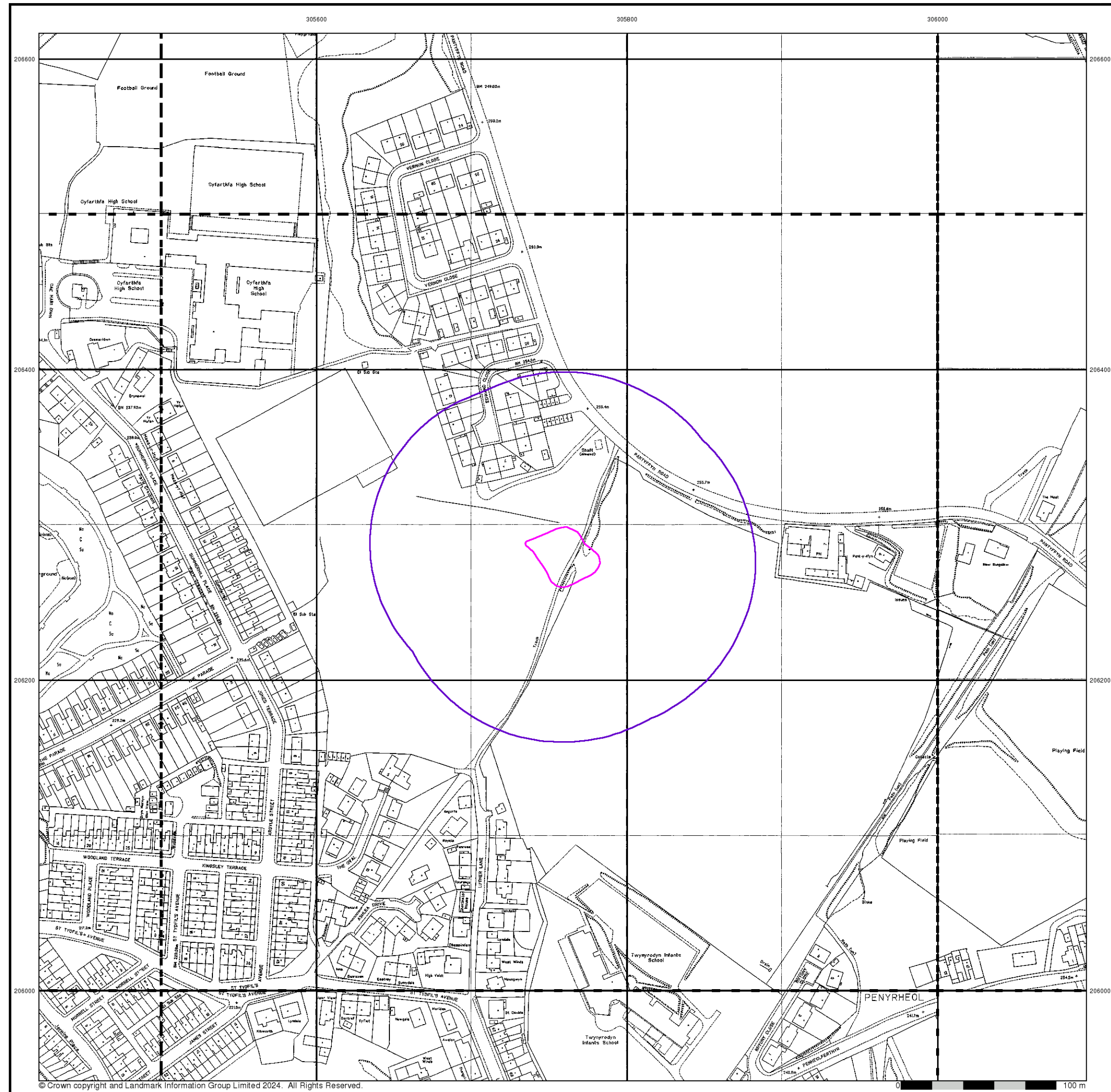
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280



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Large-Scale National Grid Data

Published 1993

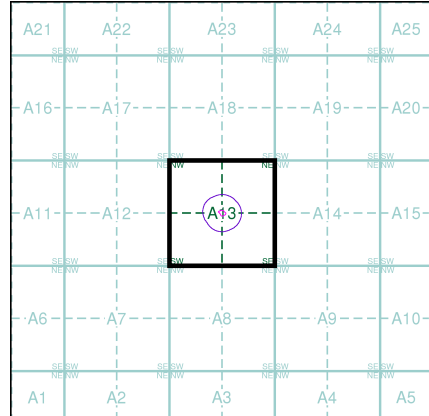
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SO0506NW	SO0506NE	SO0606NW
1993	1993	1993
1:1,250	1:1,250	1:1,250
SO0506SW	SO0506SE	SO0606SW
1993	1993	1993
1:1,250	1:1,250	1:1,250
SO0505NW	SO0505NE	
1993	1993	
1:1,250	1:1,250	

Historical Map - Segment A13



Order Details

Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280

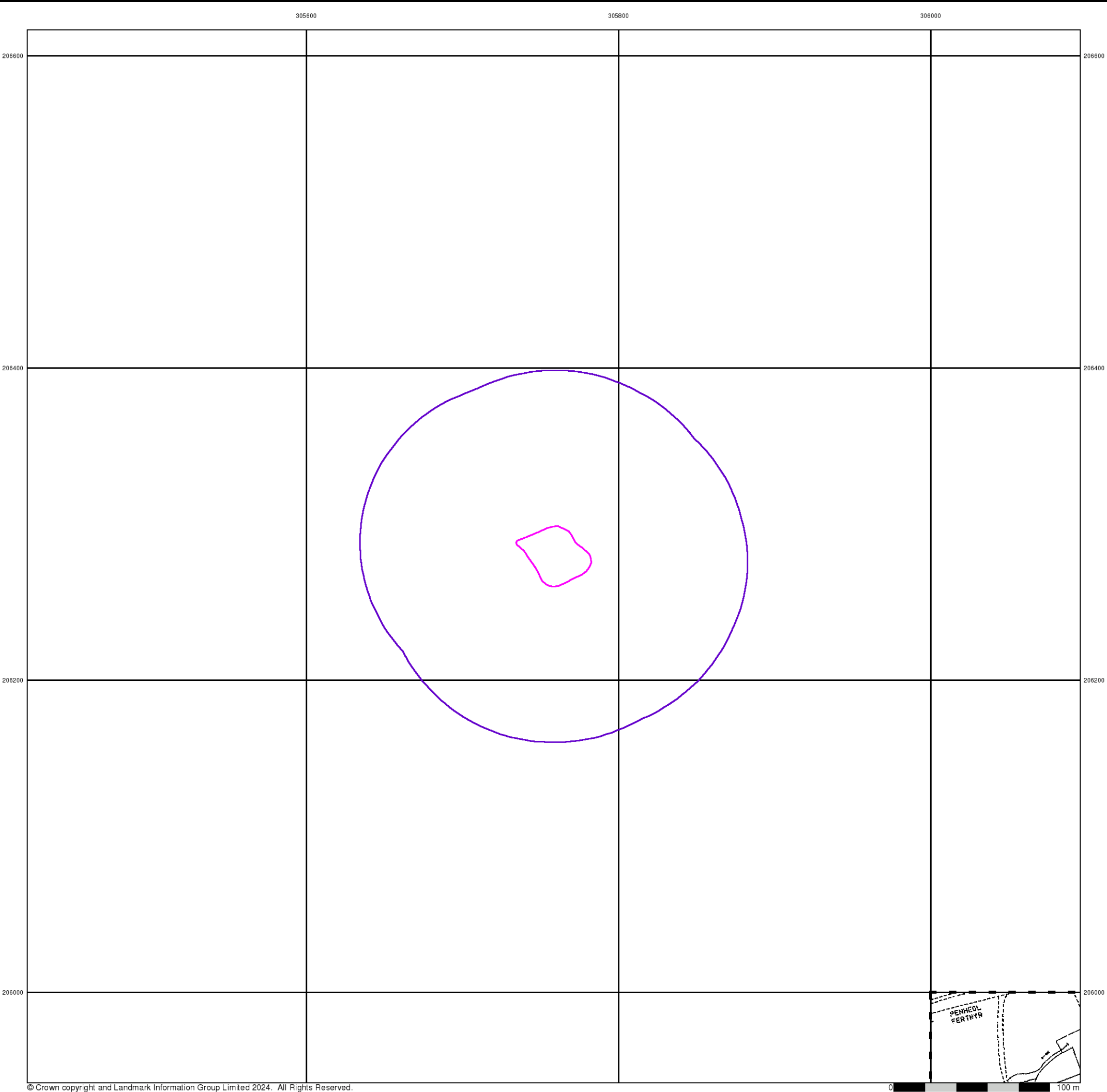


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A Landmark Information Group Service v50.0 23-Jan-2024 Page 19 of 26



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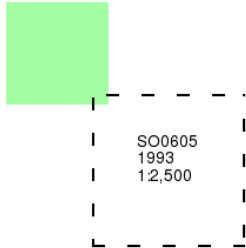
Large-Scale National Grid Data

Published 1993

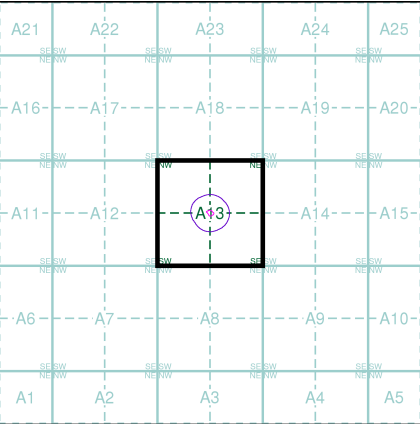
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

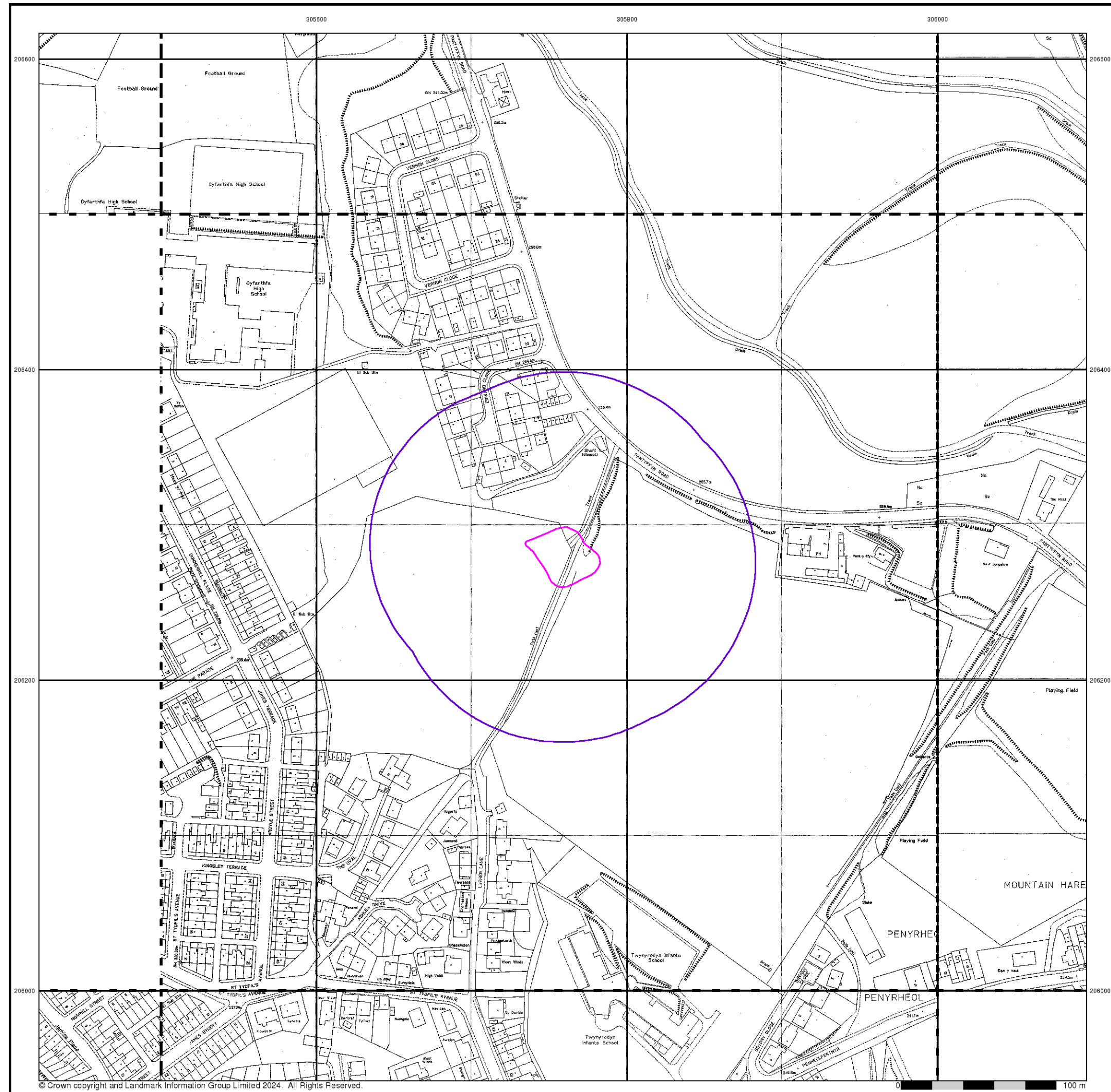
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280



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Large-Scale National Grid Data

Published 1994 - 1995

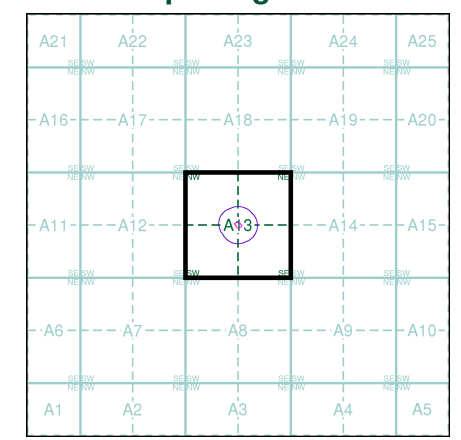
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SO0506NW	SO0506NE	SO0608NW
1995	1995	1995
1:1,250	1:1,250	1:1,250
SO0506SE	SO0608SW	
1995	1995	
1:1,250	1:1,250	
SO0505NW	SO0505NE	
1995	1994	
1:1,250	1:1,250	

Historical Map - Segment A13



Order Details

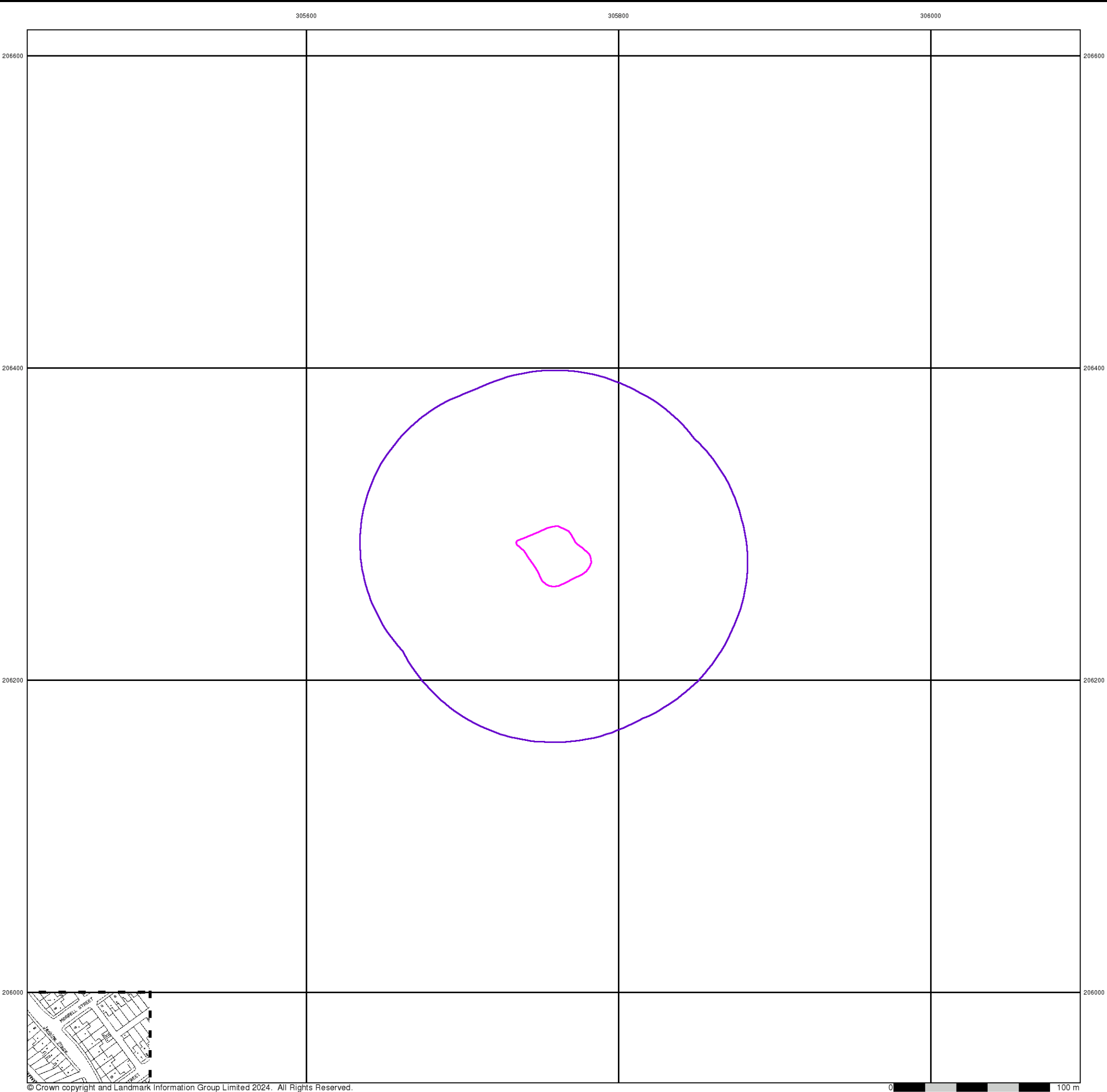
Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280



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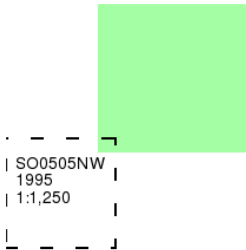
Large-Scale National Grid Data

Published 1995

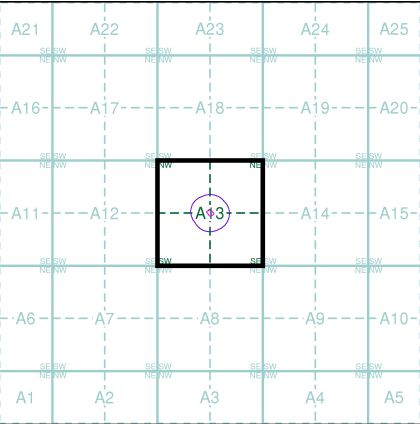
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

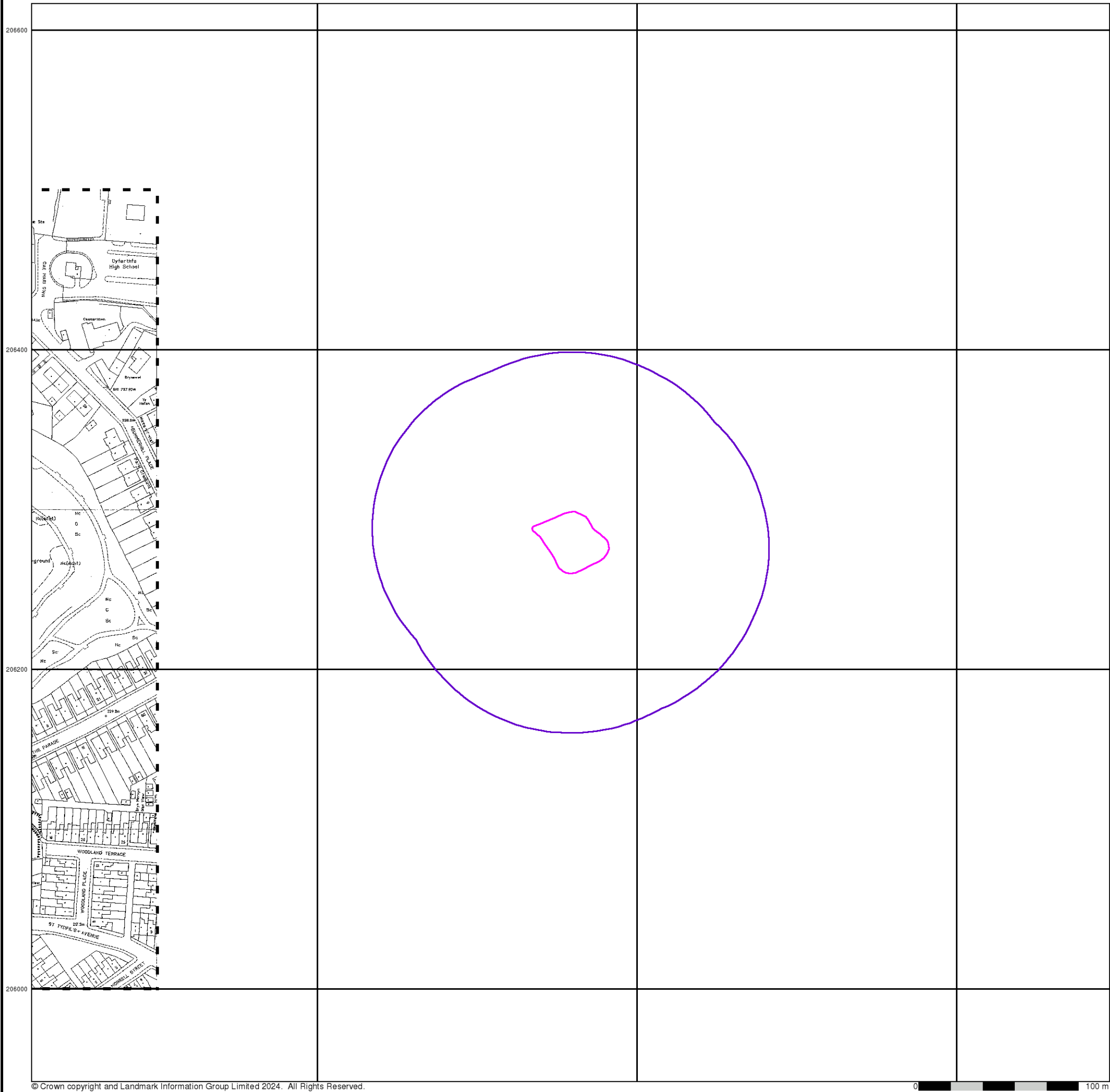
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Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280



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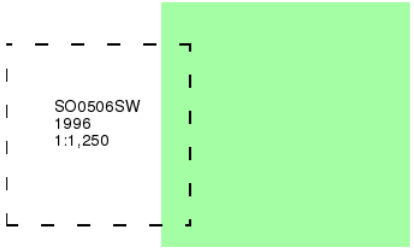
Large-Scale National Grid Data

Published 1996

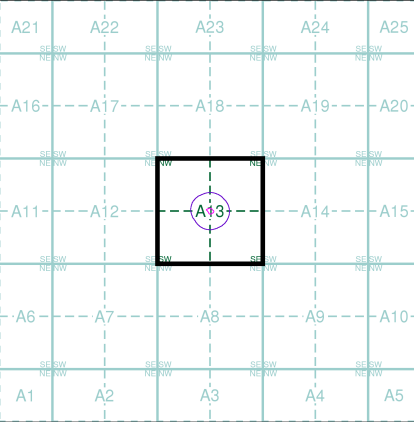
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

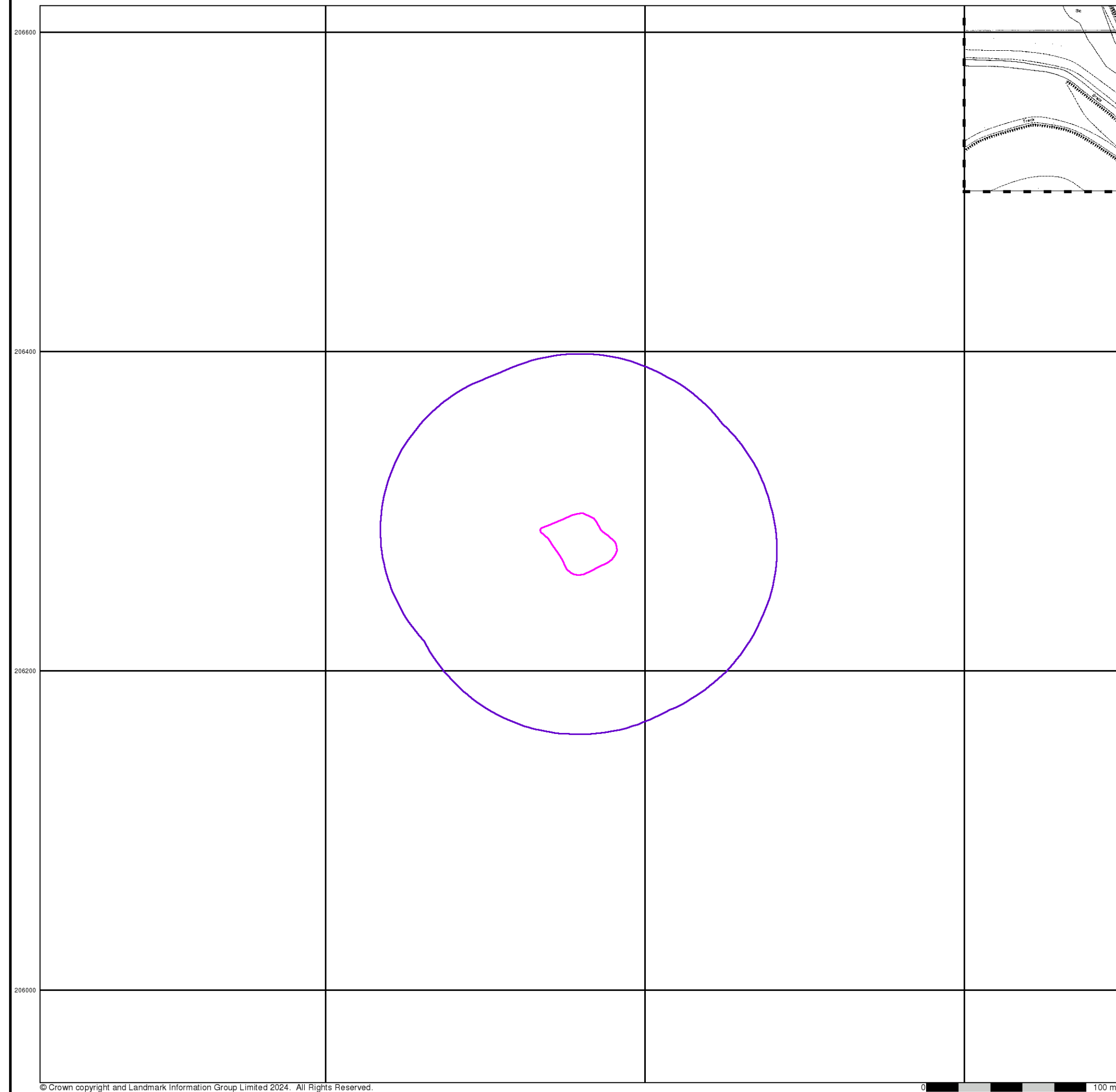
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Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280



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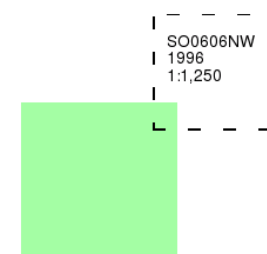
Large-Scale National Grid Data

Published 1996

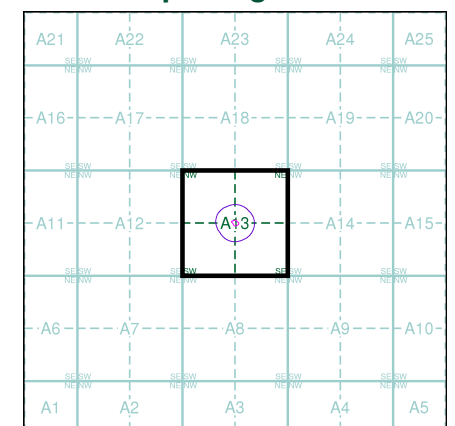
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280

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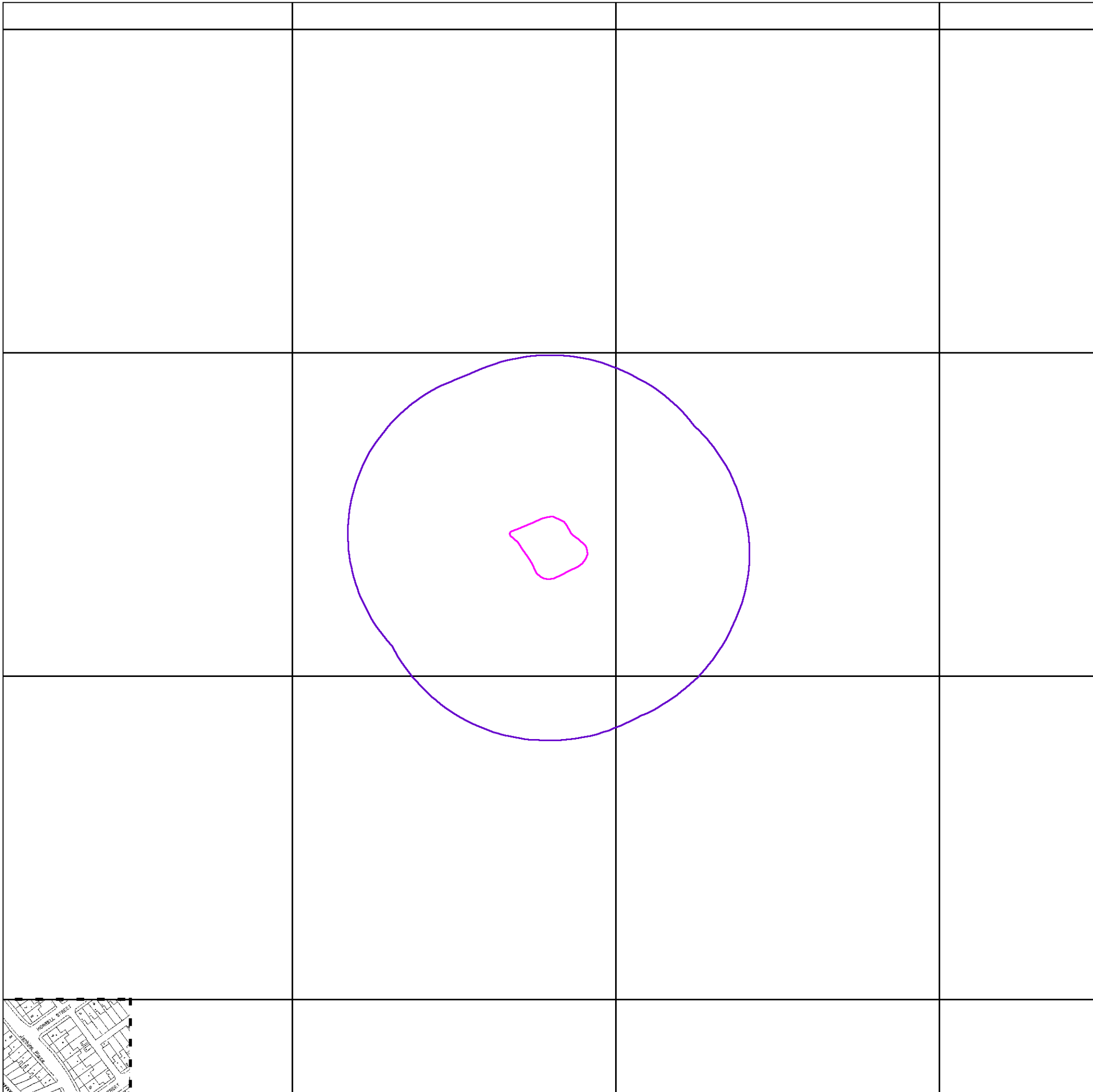
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206600

206400

206200

206000



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0 100 m



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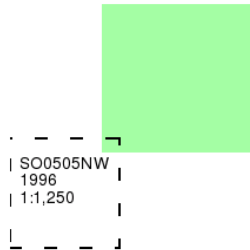
Large-Scale National Grid Data

Published 1996

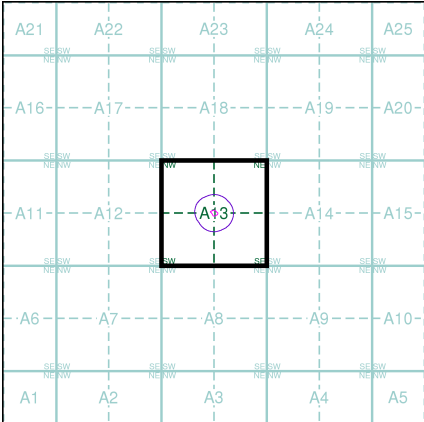
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
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Site Details

Site at 305760, 206280



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206600

206400

206200

206000

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206400

206200

206000



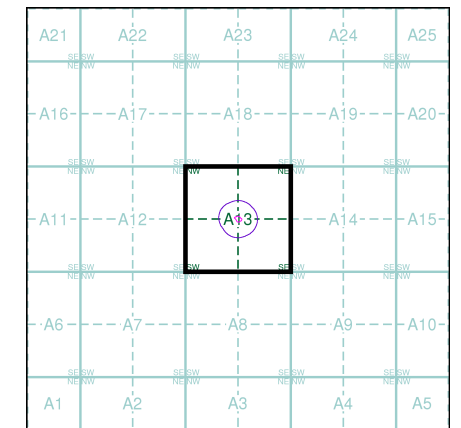
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Historical Aerial Photography

Published 2000

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



Order Details

Order Number: 332266288_1_1
Customer Ref: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 100

Site Details

Site at 305760, 206280

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Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Not Supplied - Holocene
	WGR	Worked Ground (Undivided)	Void	Not Supplied - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	TILLD	Till, Devensian	Diamicton	Not Supplied - Devensian

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SWUCM	South Wales Upper Coal Measures Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	RA	Rhondda Member	Sandstone	Not Supplied - Westphalian
	RA	Rhondda Member	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	SWCM	South Wales Middle Coal Measures Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	SWCM	South Wales Middle Coal Measures Formation	Sandstone	Not Supplied - Westphalian
	SWLCM	South Wales Lower Coal Measures Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	SWLCM	South Wales Lower Coal Measures Formation	Sandstone	Not Supplied - Westphalian
	BISHM	Bishopston Mudstone Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Namurian
	TWR	Twrch Sandstone Formation	Sandstone and Conglomerate, Interbedded	Not Supplied - Namurian
	BISHM	Bishopston Mudstone Formation	Sandstone	Not Supplied - Namurian
		Rock Segments		
		Faults		



Geology 1:50,000 Maps

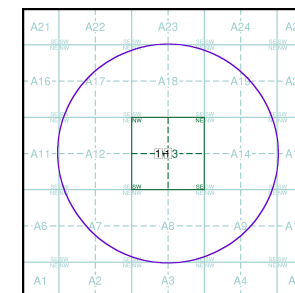
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	1
Map Sheet No:	231
Map Name:	Merthyr Tydfil
Map Date:	1979
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

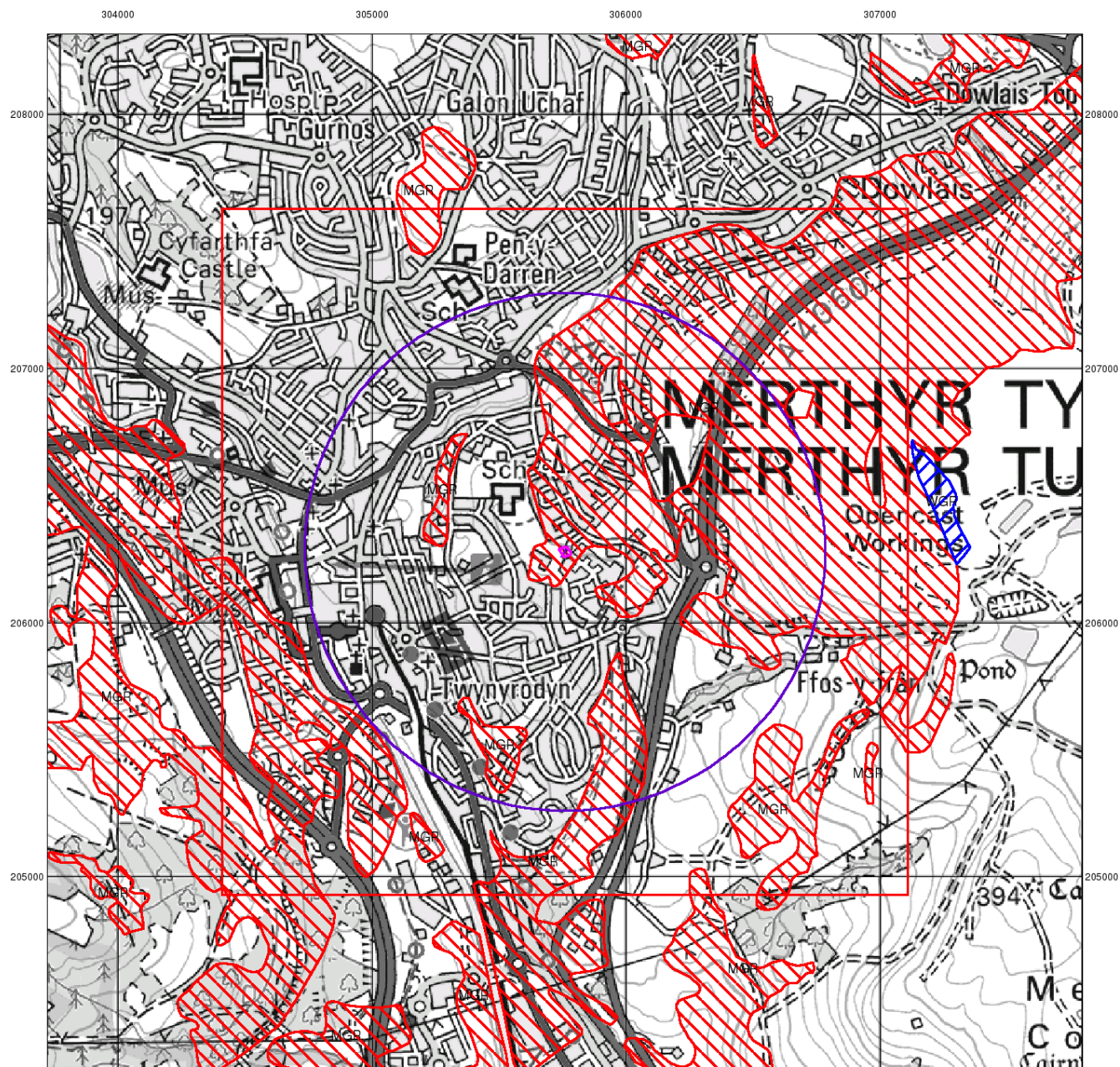
Order Number:	332266288_1_1
Customer Reference:	18167JR
National Grid Reference:	305760, 206280
Slice:	A
Site Area (Ha):	0.12
Search Buffer (m):	1000

Site Details:

Site at 305760, 206280



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Artificial Ground and Landslip

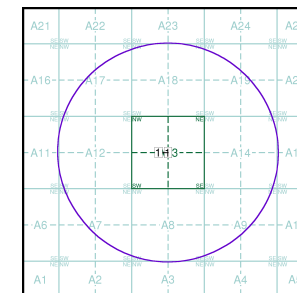
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



Order Details:

Order Number: 332266288_1_1
 Customer Reference: 18167JR
 National Grid Reference: 305760, 206280
 Slice: A
 Site Area (Ha): 0.12
 Search Buffer (m): 1000

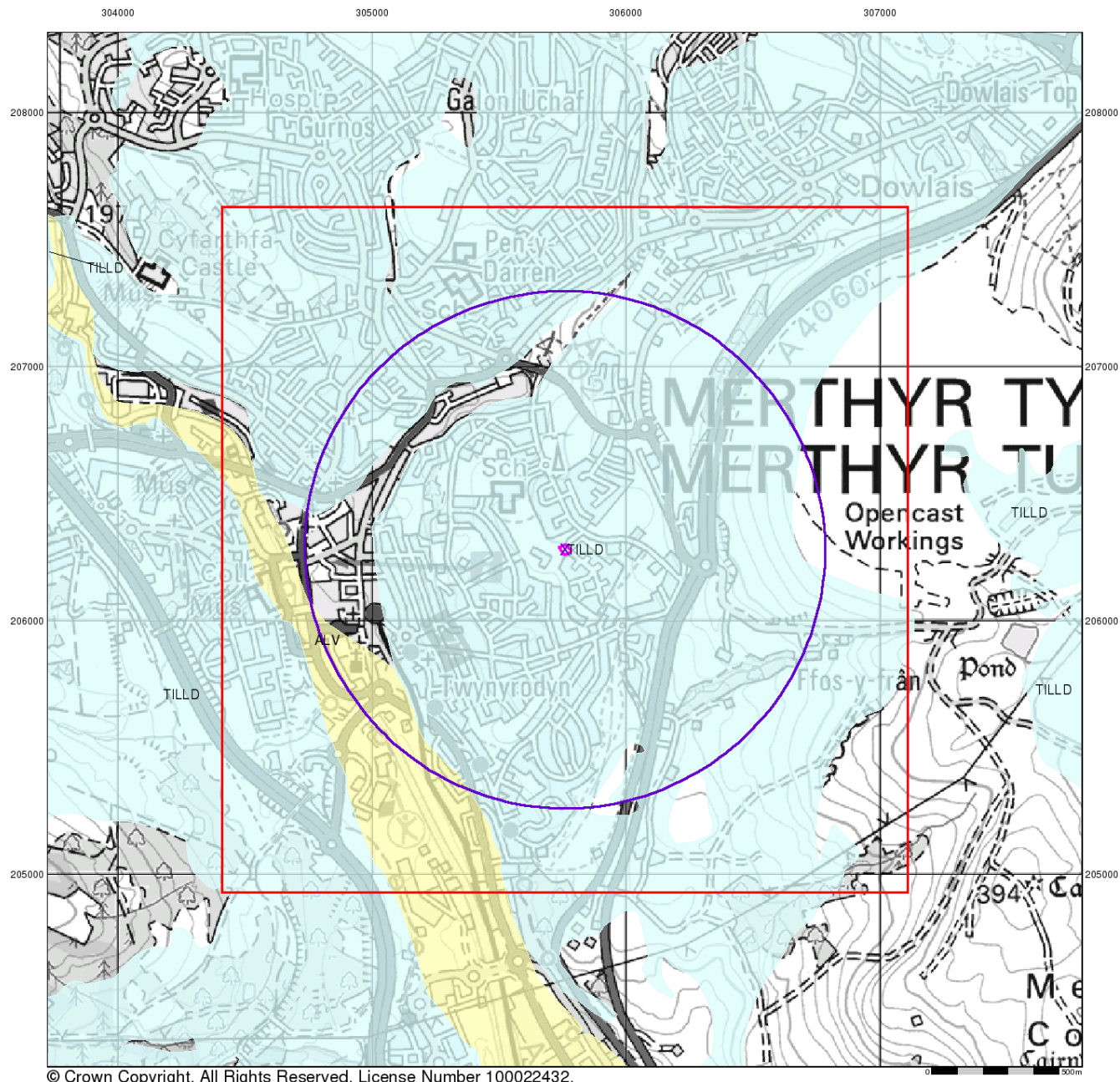
Site Details:

Site at 305760, 206280



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v15.0 23-Jan-2024



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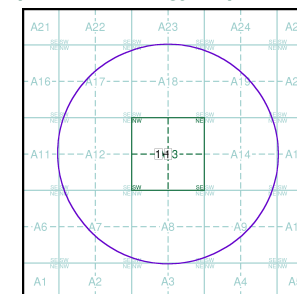
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Details:

Order Number: 332266288_1_1
 Customer Reference: 18167JR
 National Grid Reference: 305760, 206280
 Slice: A
 Site Area (Ha): 0.12
 Search Buffer (m): 1000

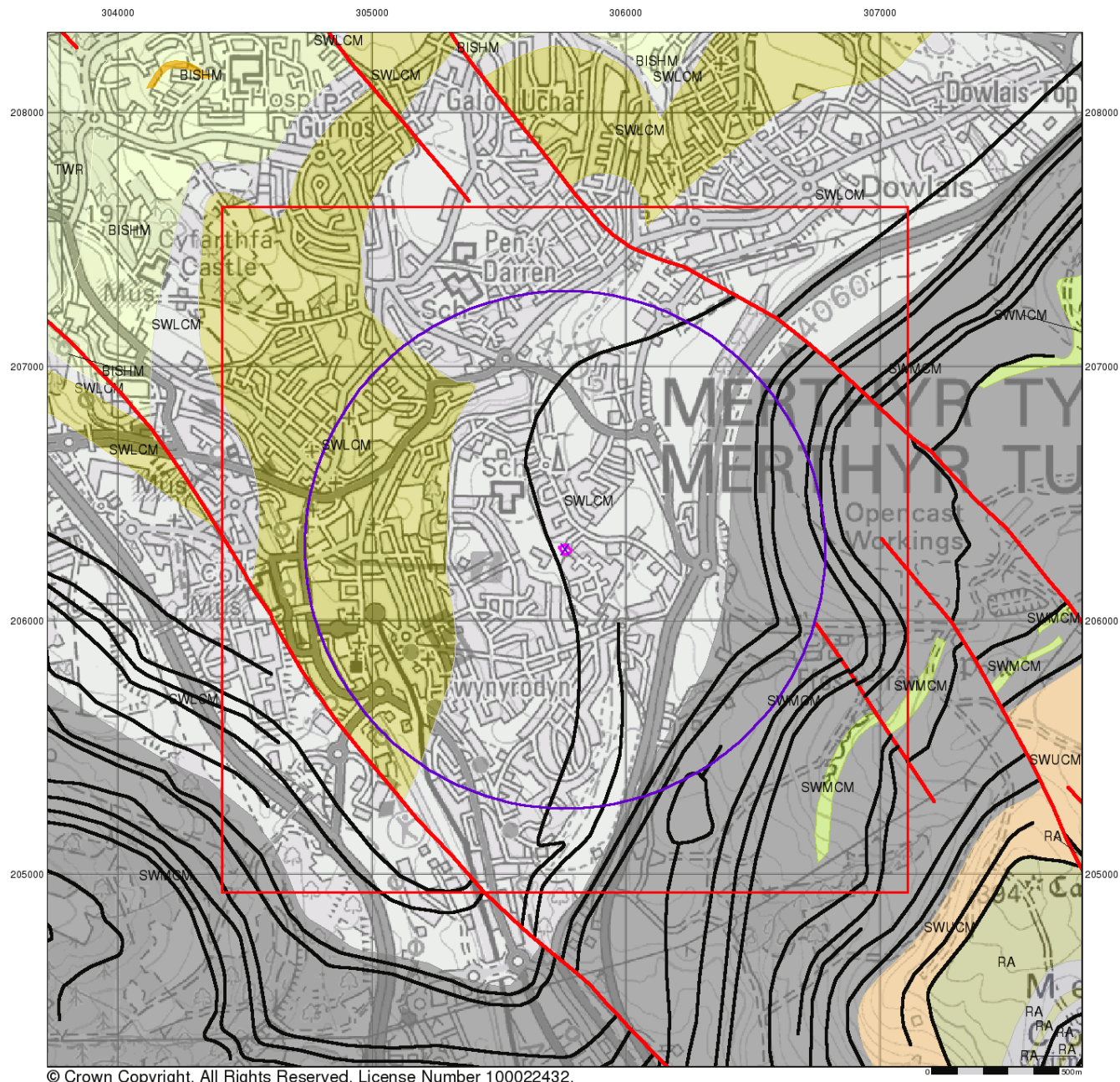
Site Details:

Site at 305760, 206280



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

v15.0 23-Jan-2024



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Geotechnical & Geoenvironmental Specialists

Bedrock and Faults

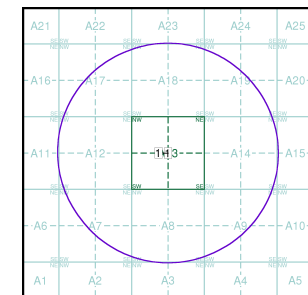
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



Order Details:

Order Number: 332266288_1_1
 Customer Reference: 18167JR
 National Grid Reference: 305760, 206280
 Slice: A
 Site Area (Ha): 0.12
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Site Details:

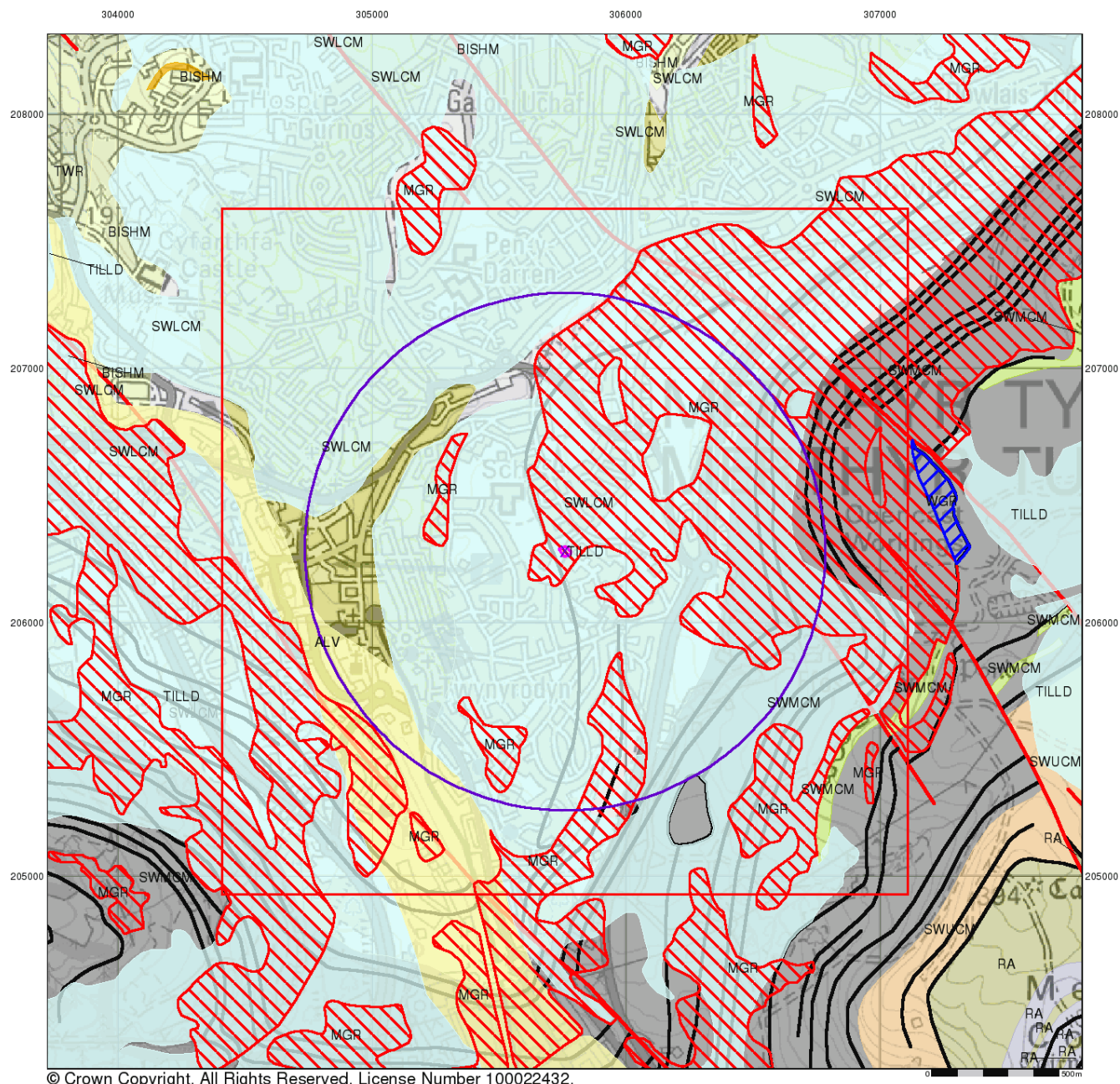
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Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

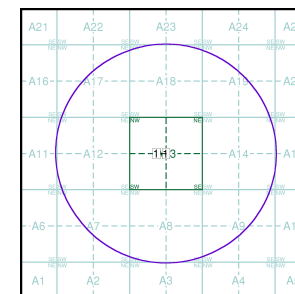
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Telephone: 0115 936 3143
Fax: 0115 936 3276
email: enquiries@bgs.ac.uk
website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details:

Order Number: 332266288_1_1
Customer Reference: 18167JR
National Grid Reference: 305760, 206280
Slice: A
Site Area (Ha): 0.12
Search Buffer (m): 1000

Site Details:

Site at 305760, 206280



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ANNEX B
Risk Assessment Definitions

The contaminated land regime is set out in Part 2A of the Environmental Protection Act (EPA) 1990 and was introduced on the 1st April 2000 in England and 1st July 2001 in Wales. A similar regime was introduced in Scotland on 14th July 2000.

Part 2A was introduced to achieve three overarching objectives:

- (a) To identify and remove unacceptable risks to human health and the environment.
- (b) To seek to ensure that contaminated land is made suitable for its current use.
- (c) To ensure that the burdens faced by individuals, companies and society as a whole are proportionate, manageable and compatible with the principles of sustainable development.

Under Part 2A the statutory definition of 'contaminated land' is:

"any land which appears to the local authority in whose area it is situated, to be in such a condition, by reason of substances in, on, or under the land, that:

- (a) Significant harm is being caused or there is a significant possibility of such harm being caused; or
- (b) Pollution of controlled waters is being, or is likely to be, caused."

Under Part 2A, for land to be classified as 'Contaminated Land' there must be one or more contaminant, pathway, receptor linkages, known as the '**Pollutant Linkage**'. A pollutant linkage requires three essential elements:

- (a) A **CONTAMINANT** (SOURCE) – a substance that is in, on or under the land and has the potential to cause harm or to cause pollution of controlled waters.
- (b) A **RECEPTOR** – something which could be adversely affected by a contaminant.
- (c) A **PATHWAY** – a route by which a receptor is or might be exposed to or affected by a contaminant.

The term 'Risk' is widely used in different contexts and situations, but a prescriptive definition is given by the Guidelines for Environmental Risk Assessment and Management (DEFRA *et al*, 2000):

'Risk is a combination of the probability, or frequency, of occurrence of a defined hazard and the magnitude of the consequences of the occurrence'.

Model Procedures for the Management of Land Contamination – Contamination Land Report 11 (2004) defines a 'Hazard' as

'a property or situation that in particular circumstances could lead to harm'.

A framework for qualitative risk assessment is provided in CIRIA publication C552 Contaminated Land Risk Assessment – A Guide to Good Practice (2001). The method requires an assessment of the magnitude of the probability of the risk occurring and the magnitude of the potential consequence. Classifications of consequences and probability, levels and descriptions of risk have been devised from the above publication and are defined in the following sections.

Classification of Consequence

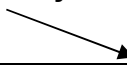
Table A Classification of Consequence	
Classification	Definition
Severe	• Short term (acute) risk to human health likely to result in significant harm • Short term risk to controlled waters • Catastrophic damage to buildings/structures • Short term risk to an ecosystem or organism within the particular ecosystem
Medium	• Chronic damage to human health (long term risk) • Pollution of a sensitive water resource • A significant change in an ecosystem or organism within the ecosystem
Mild	• Pollution of non-sensitive water resources • Significant damage to buildings/structures • Damage to sensitive buildings/structure/services or the environment
Negligible	• Harm (not necessarily significant) which may result in financial loss • Non-permanent health effects to humans (easily prevented by PPE for example) • Easily repairable effects of structural (building) damage

Classification of Probability

Table B Classification of Probability	
Classification	Definition
High Likelihood	• There is a complete pollution linkage and an event appears very likely to occur in the short term and is inevitable in the long term. • Evidence of harm to the receptor
Likely	• There is a complete pollution linkage which means that it is probable that an event will occur • The event is not inevitable but possible in short term and likely in the long term
Low Likelihood	• There is a complete pollution linkage and circumstances are possible under which an event could occur • It is not certain that an event will occur in the long term, and it is less likely to occur in the short term
Unlikely	• There is a complete pollution linkage but circumstances are such that it is improbable that an event would occur even in the long term

Risk Assessment Matrix

By comparing the consequences of a risk and the probability of the risk of a pollution linkage, the likely risk category can be determined as shown in **Table C** below.

Table C Risk Assessment Matrix					
Increasing acceptability 		Consequence			
		Severe	Medium	Mild	Negligible
Probability	High Likelihood	High risk	High risk	Medium risk	Low risk
	Likely	High risk	Medium risk	Low risk	Near zero risk
	Low Likelihood	Medium risk	Low risk	Low risk	Near zero risk
	Unlikely	Low risk	Near zero risk	Near zero risk	Near zero risk

Description of Risks and Likely Actions

High Risk

There is a high probability that severe harm could arise to a receptor, or there is evidence that a receptor is currently being severely harmed. The risk if realised is likely to result in liability, and urgent investigation or remediation will be required.

Medium Risk

It is probable that harm will arise to a receptor. However, it is relatively unlikely that such harm would be severe, or if harm does occur the harm is likely to be relatively mild. Investigation will be required to determine the liability, and some remedial works may be required in the long term.

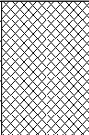
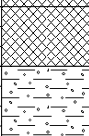
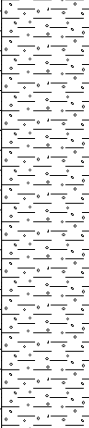
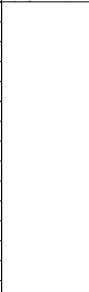
Low Risk

It is possible that harm may arise to a receptor, but it is likely that the harm would be mild.

Near Zero Risk

There is a very low risk of harm to the receptor. In the event of harm being realised the harm is not likely to be severe.

**ANNEX C
Trial Pit Logs**

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. TP01 Sheet 1 of 1	
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 15/02/2024				Hole Type TP	
Client Merthyr Tydfil County Borough Council				Co-ords E: 305750.00 N: 206284.00 L: 252.10		Water Strike Details Depth Strike Remarks				Logged By ACASE	
Contractor M & J Plant				Plant Used 6 Tonne Tracked Excavator						Approved By ACASE Scale 1:50	
Samples and Results			Depth, (Thickness)	Level	Stratum Description					Legend	
Results	Type	Depth									
	ES	0.50	(0.70)		MADE GROUND: Soft to firm light brown mottled black and orangish brown sandy gravelly CLAY. Gravel is angular to sub angular fine to coarse brick and concrete fragments, mudstone, sandstone.						
			0.70 (0.30)	251.40	MADE GROUND: Firm black slightly sandy very gravelly CLAY. Gravel is angular to sub angular fine to coarse colliery spoil, coal, and mudstone. Sand is fine to coarse.						
			1 1.00	251.10	Firm dark brown slightly gravelly CLAY. Gravel is sub angular fine to coarse sandstone and mudstone.						
			2 (2.50)								
3											
3.50	248.60	End of Trial Pit at 3.50m									
4											
Remarks 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit paused at 1.5m to perform infiltration test. Following termination of test, excavation recommenced and terminated at 3.5m. 4] Trial pit backfilled with arisings on completion of test. 5] No groundwater encountered. Pit Stability: STABLE											
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.											

0.50m

2.00m

Final Depth 3.50m

**ANNEX D
Soakaway Results**

SOAKAWAY TEST

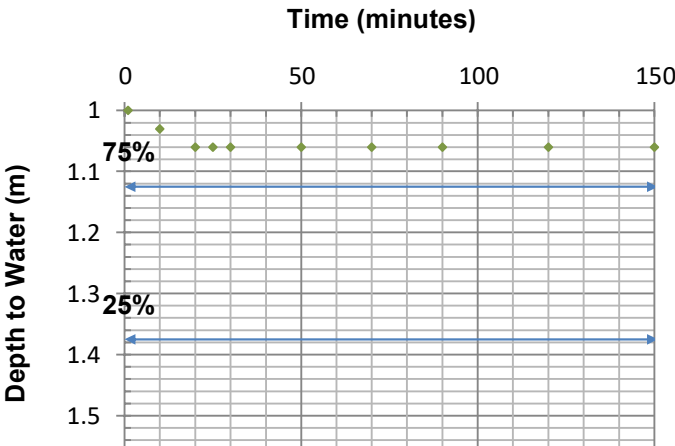


Site Name: Ysgol Gymraeg Santes Tydfil, Merthyr
Project Number: 18167
Date: 15/02/20245
Engineer: AC

Trial Pit: TP01

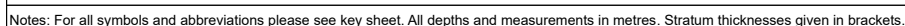
TEST 1

Length	2.00 m
Width	0.50 m
Depth	1.50 m
Fill Level	1.00 m
V_{p75-25}	0.25 m ³
a_{p50}	2.25 m ²
t_{p75-25}	minutes
Soil Infiltration Rate, f	N/A ms ⁻¹



ANNEX E
Windowless Sample Borehole Logs

Remarks	Borehole Diameter	
	Base Depth	Diameter
	3.00	200
1] On completion a 50mm standpipe (50mm) was installed to 3.0m depth. Slotted pipe with granular response zone from 0.5m-3.0m, solid standpipe with bentonite seal GL-0.50m, and a flat cover. 2] Medium groundwater inflow encountered at 2.00m.		
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.		



ANNEX F
Rotary Open Borehole Logs

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. BH01 Sheet 1 of 4	
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 13/02/2024				Hole Type RO	
Client Merthyr Tydfil County Borough Council				Co-ords E: 305754.00 N: 206282.00 L: 252.10		Water Strike Details Depth Strike After 20 mins Remarks 2.30 2.10				Logged By ACASE	
Contractor Van Elle				Plant Used Rotary Drilling Rig						Approved By ACASE	
										Scale 1:50	
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description			Legend	Well
Results	Type	Depth									
					1 (2.00)		MADE GROUND: Black mottled light brown sandy gravelly CLAY with coal (Rotary Open Hole Drillers Description)				
					2 2.00	250.10	Sandy gravelly CLAY of glacial till/boulder clay (Rotary Open Hole - Drillers Description)				
					3						
					4						
					(5.40)						
					5						
					6						
					7						
					7.40	244.70	Interbedded grey MUDSTONE & SANDSTONE (Rotary Open Hole - Drillers Description) ()				
					8 (1.40)						
					8.80	243.30	Very soft POSSIBLE BACKFILLED WORKINGS & Broken Ground (Rotary Open Hole - Drillers Description) ()				
Remarks 1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 2.30m							Borehole Diameter Base Depth Diameter 40.00 200				
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.											

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. BH01 Sheet 2 of 4		
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 13/02/2024				Hole Type RO		
Client Merthyr Tydfil County Borough Council				Co-ords E: 305754.00 N: 206282.00 L: 252.10		Water Strike Details Depth Strike After 20 mins Remarks 2.30 2.10				Logged By ACASE		
Contractor Van Elle			Plant Used Rotary Drilling Rig							Approved By ACASE Scale 1:50		
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description				Legend	Well
Results	Type	Depth										
					(3.30)		Very soft POSSIBLE BACKFILLED WORKINGS & Broken Ground (Rotary Open Hole Drillers Description)					
					11							
					12	12.10 240.00	Interbedded grey MUDSTONE & SANDSTONE with no flush returns (Rotary Open Hole Drillers Description)					
					13							
					14							
					15							
					16							
					17							
					18							
					19							
Remarks 1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 2.30m							Borehole Diameter Base Depth Diameter 40.00 200					
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.												

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. BH01 Sheet 3 of 4		
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 13/02/2024				Hole Type RO		
Client Merthyr Tydfil County Borough Council				Co-ords E: 305754.00 N: 206282.00 L: 252.10		Water Strike Details Depth Strike After 20 mins Remarks 2.30 2.10				Logged By ACASE		
Contractor Van Elle			Plant Used Rotary Drilling Rig							Approved By ACASE Scale 1:50		
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description				Legend	Well
Results	Type	Depth										
					21 (18.10)		Interbedded grey MUDSTONE & SANDSTONE with no flush returns (Rotary Open Hole Drillers Description)					
					22							
					23							
					24							
					25							
					26							
					27							
					28							
					29							
Remarks 1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 2.30m							Borehole Diameter Base Depth Diameter 40.00 200					
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.												

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. BH01 Sheet 4 of 4	
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 13/02/2024				Hole Type RO	
Client Merthyr Tydfil County Borough Council				Co-ords E: 305754.00 N: 206282.00 L: 252.10		Water Strike Details Depth Strike After 20 mins Remarks 2.30 2.10				Logged By ACASE	
Contractor Van Elle				Plant Used Rotary Drilling Rig						Approved By ACASE Scale 1:50	
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description			Legend	Well
Results	Type	Depth									
					30.20	221.90	Interbedded grey MUDSTONE & SANDSTONE with no flush returns (Rotary Open Hole - Drillers Description) Very soft POSSIBLE BACKFILLED WORKINGS (Rotary Open Hole - Drillers Description)				
					31	(1.60)					
					31.80	220.30	Interbedded grey MUDSTONE & SANDSTONE with no flush returns (Rotary Open Hole - Drillers Description)				
					32						
					33						
					34						
					35						
					36	(8.20)					
					37						
					38						
					39						
					40.00	212.10	End of Borehole at 40.00m				
Remarks 1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 2.30m							Borehole Diameter				
							Base Depth		Diameter		
							40.00		200		
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.											

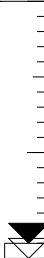
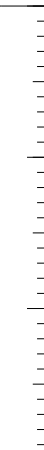
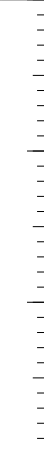
		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. BH02 Sheet 1 of 4	
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 13/02/2024				Hole Type RO	
Client Merthyr Tydfil County Borough Council				Co-ords E: 305756.00 N: 206278.00 L: 252.10		Water Strike Details Depth Strike After 20 mins Remarks 2.50 2.30				Logged By ACASE	
Contractor Van Elle			Plant Used Rotary Drilling Rig							Approved By ACASE Scale 1:50	
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description			Legend	Well
Results	Type	Depth									
					1 (3.00) 2 3 3.00 249.10	MADE GROUND: Black mottled light brown sandy gravelly CLAY with coal (Rotary Open Hole Drillers Description)					
					4 (3.00) 5 6 6.00 246.10	Sandy gravelly CLAY of glacial till/boulder clay (Rotary Open Hole -Drillers Description)					
					7 8 (3.70) 9 9.70 242.40	Interbedded grey MUDSTONE & SANDSTONE (Rotary Open Hole -Drillers Description)					
						Very soft POSSIBLE BACKFILLED WORKINGS with no flush returns (Rotary Open Hole Drillers Description)					
Remarks 1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 2.50m							Borehole Diameter				
							Base Depth		Diameter		
							40.00		200		
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.											



Remarks	Borehole Diameter	
	Base Depth	Diameter
	40.00	200
1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 2.50m		
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.		

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. BH02 Sheet 3 of 4	
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 13/02/2024				Hole Type RO	
Client Merthyr Tydfil County Borough Council				Co-ords E: 305756.00 N: 206278.00 L: 252.10		Water Strike Details Depth Strike After 20 mins Remarks 2.50 2.30				Logged By ACASE	
Contractor Van Elle			Plant Used Rotary Drilling Rig							Approved By ACASE	
										Scale 1:50	
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description			Legend	Well
Results	Type	Depth									
							Interbedded grey MUDSTONE & SANDSTONE with poor returns (Rotary Open Hole Drillers Description)				
					21						
					22						
					23						
					24						
					25						
					26						
					27						
					27.30	224.80	Very soft POSSIBLE BACKFILLED WORKINGS & Broken Ground (Rotary Open Hole Drillers Description)				
					28						
					(3.00)						
					29						
Remarks							Borehole Diameter				
1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 2.50m							Base Depth		Diameter		
							40.00		200		
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.											

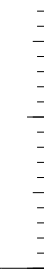
		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. BH02 Sheet 4 of 4		
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 13/02/2024				Hole Type RO		
Client Merthyr Tydfil County Borough Council				Co-ords E: 305756.00 N: 206278.00 L: 252.10		Water Strike Details Depth Strike After 20 mins Remarks 2.50 2.30				Logged By ACASE		
Contractor Van Elle			Plant Used Rotary Drilling Rig							Approved By ACASE Scale 1:50		
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description				Legend	Well
Results	Type	Depth										
					30.30	221.80	Very soft POSSIBLE BACKFILLED WORKINGS & Broken Ground (Rotary Open Hole Drillers Description)					
							Interbedded grey MUDSTONE & SANDSTONE (Rotary Open Hole -Drillers Description)					
					31							
					32							
					33							
					34							
					35	(9.70)						
					36							
					37							
					38							
					39							
					40.00	212.10	End of Borehole at 40.00m					
Remarks 1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 2.50m							Borehole Diameter					
							Base Depth		Diameter			
							40.00		200			
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.												

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. BH03 Sheet 1 of 4	
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 13/02/2024				Hole Type RO	
Client Merthyr Tydfil County Borough Council				Co-ords E: 305748.00 N: 206277.00 L: 252.10		Water Strike Details Depth Strike After 20 mins Remarks 1.70 1.60				Logged By ACASE	
Contractor Van Elle			Plant Used Rotary Drilling Rig							Approved By ACASE Scale 1:50	
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description			Legend	Well
Results	Type	Depth									
					1 (3.00)		MADE GROUND: Black mottled light brown sandy gravelly CLAY with coal (Rotary Open Hole Drillers Description)				
					2						
					3 (3.00)	249.10	Sandy gravelly CLAY of glacial till/boulder clay (Rotary Open Hole -Drillers Description)				
					4 (3.00)						
					5						
					6 (3.00)	246.10	Interbedded grey MUDSTONE & SANDSTONE (Rotary Open Hole -Drillers Description)				
					7 (3.00)						
					8						
					9 (2.00)	243.10	Very soft POSSIBLE BACKFILLED WORKINGS with no flush returns (Rotary Open Hole Drillers Description)				
Remarks 1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 1.70m							Borehole Diameter				
							Base Depth		Diameter		
							40.00		200		
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.											

			Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors Phone: 033 022 36380 Email: hello@tfwgroup.co.uk				Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA			Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP			Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA			Borehole No. BH03 Sheet 2 of 4	
Project Name Ysgol Gymraeg Santes Tydfil							Project No. 18167		Date 13/02/2024				Hole Type RO				
Client Merthyr Tydfil County Borough Council							Co-ords E: 305748.00 N: 206277.00 L: 252.10		Water Strike Details				Logged By ACASE				
Contractor Van Elle									Depth Strike 1.70		After 20 mins 1.60		Remarks		Approved By ACASE		
Plant Used Rotary Drilling Rig													Scale 1:50				
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description						Legend	Well			
Results	Type	Depth															
					11 11.00 241.10		Very soft POSSIBLE BACKFILLED WORKINGS with no flush returns (Rotary Open Hole Drillers Description)										
					12		Interbedded grey MUDSTONE & SANDSTONE with no flush returns (Rotary Open Hole Drillers Description)										
					13												
					14												
					15												
					16 (10.20)												
					17												
					18												
					19												
Remarks 1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 1.70m							Borehole Diameter										
							Base Depth			Diameter							
							40.00			200							
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.																	

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. BH03 Sheet 3 of 4	
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 13/02/2024				Hole Type RO	
Client Merthyr Tydfil County Borough Council				Co-ords E: 305748.00 N: 206277.00 L: 252.10		Water Strike Details Depth Strike After 20 mins Remarks 1.70 1.60				Logged By ACASE	
Contractor Van Elle			Plant Used Rotary Drilling Rig							Approved By ACASE Scale 1:50	
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description			Legend	Well
Results	Type	Depth									
					21 21.20	230.90	Interbedded grey MUDSTONE & SANDSTONE with no flush returns (Rotary Open Hole Drillers Description)				
					(1.30) 22 22.50	229.60	Very soft POSSIBLE BACKFILLED WORKINGS with no flush returns (Rotary Open Hole Drillers Description)				
					23 24 25 (6.00) 26 27 28 28.50	223.60	Interbedded grey MUDSTONE & SANDSTONE (Rotary Open Hole -Drillers Description)				
					29 (1.50) 30.00	222.10	Black COAL (Rotary Open Hole Drillers Description)				
Remarks 1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 1.70m							Borehole Diameter Base Depth Diameter 40.00 200				
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.											

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors Phone: 033 022 36380 Email: hello@tfwgroup.co.uk		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. BH03 Sheet 4 of 4		
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 13/02/2024				Hole Type RO		
Client Merthyr Tydfil County Borough Council				Co-ords E: 305748.00 N: 206277.00 L: 252.10		Water Strike Details Depth Strike After 20 mins Remarks 1.70 1.60				Logged By ACASE		
Contractor Van Elle			Plant Used Rotary Drilling Rig							Approved By ACASE Scale 1:50		
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description				Legend	Well
Results	Type	Depth										
					31		Interbedded grey MUDSTONE & SANDSTONE (Rotary Open Hole -Drillers Description)					
					32							
					33							
					34							
					35 (10.00)							
					36							
					37							
					38							
					39							
40.00 212.10							End of Borehole at 40.00m					
Remarks 1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 1.70m							Borehole Diameter					
							Base Depth		Diameter			
							40.00		200			
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.												

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. BH04 Sheet 1 of 4	
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 13/02/2024 to 14/02/2024				Hole Type RO	
Client Merthyr Tydfil County Borough Council				Co-ords E: 305753.00 N: 206275.00 L: 252.10		Water Strike Details Depth Strike After 20 mins Remarks 2.40 2.20				Logged By ACASE	
Contractor Van Elle				Plant Used Rotary Drilling Rig						Approved By ACASE Scale 1:50	
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description			Legend	Well
Results	Type	Depth									
					1 (2.00)		MADE GROUND: Black mottled light brown sandy gravelly CLAY with coal (Rotary Open Hole Drillers Description)				
					2 2.00	250.10	Sandy gravelly CLAY of glacial till/boulder clay (Rotary Open Hole -Drillers Description)				
					3						
					4 (4.20)						
					5						
					6 6.20	245.90	Interbedded grey MUDSTONE & SANDSTONE (Rotary Open Hole -Drillers Description)				
					7 (1.80)						
					8 8.00	244.10	Very soft POSSIBLE BACKFILLED WORKINGS & Broken Ground (Rotary Open Hole Drillers Description)				
					9 (2.60)						
Remarks 1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 2.40m							Borehole Diameter				
							Base Depth		Diameter		
							40.00		200		
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.											

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors Phone: 033 022 36380 Email: hello@tfwgroup.co.uk		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. BH04 Sheet 2 of 4		
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 13/02/2024 to 14/02/2024				Hole Type RO		
Client Merthyr Tydfil County Borough Council				Co-ords E: 305753.00 N: 206275.00 L: 252.10		Water Strike Details Depth Strike After 20 mins Remarks 2.40 2.20				Logged By ACASE		
Contractor Van Elle			Plant Used Rotary Drilling Rig							Approved By ACASE Scale 1:50		
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description				Legend	Well
Results	Type	Depth										
					10.60	241.50	Very soft POSSIBLE BACKFILLED WORKINGS & Broken Ground (Rotary Open Hole Drillers Description)					
							Interbedded grey MUDSTONE & SANDSTONE with poor returns (Rotary Open Hole Drillers Description)					
					11							
					12							
					13							
					14							
					15							
					16							
					17							
					18							
					19							
					(17.60)							
Remarks 1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 2.40m							Borehole Diameter					
							Base Depth		Diameter			
							40.00		200			
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.												

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. BH04 Sheet 3 of 4	
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 13/02/2024 to 14/02/2024				Hole Type RO	
Client Merthyr Tydfil County Borough Council				Co-ords E: 305753.00 N: 206275.00 L: 252.10		Water Strike Details Depth Strike After 20 mins Remarks 2.40 2.20				Logged By ACASE	
Contractor Van Elle			Plant Used Rotary Drilling Rig							Approved By ACASE Scale 1:50	
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description			Legend	Well
Results	Type	Depth									
							Interbedded grey MUDSTONE & SANDSTONE with poor returns (Rotary Open Hole Drillers Description)				
					21						
					22						
					23						
					24						
					25						
					26						
					27						
					28	28.20 223.90	Very soft POSSIBLE BACKFILLED WORKINGS (Rotary Open Hole -Drillers Description)				
					29	(1.80)					
					30.00 222.10						
Remarks 1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 2.40m							Borehole Diameter				
							Base Depth		Diameter		
							40.00		200		
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.											

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. BH04 Sheet 4 of 4		
Project Name Ysgol Gymraeg Santes Tydfil				Project No. 18167		Date 13/02/2024 to 14/02/2024				Hole Type RO		
Client Merthyr Tydfil County Borough Council				Co-ords E: 305753.00 N: 206275.00 L: 252.10		Water Strike Details Depth Strike After 20 mins Remarks 2.40 2.20				Logged By ACASE		
Contractor Van Elle			Plant Used Rotary Drilling Rig							Approved By ACASE Scale 1:50		
Samples and Results			TCR SCR RQD	FI	Depth, (Thickness)	Level	Stratum Description				Legend	Well
Results	Type	Depth										
					31		Interbedded grey MUDSTONE & SANDSTONE with poor returns (Rotary Open Hole Drillers Description)					
					32							
					33							
					34							
					35	(10.00)						
					36							
					37							
					38							
					39							
					40.00	212.10					End of Borehole at 40.00m	
Remarks 1] On completion, the rotary open borehole was backfilled with gravel. 2] Groundwater encountered at 2.40m								Borehole Diameter				
								Base Depth		Diameter		
								40.00		200		
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.												

ANNEX G
Laboratory Soil Chemical Test Results



Amended Report

Report No.: 24-05465-2 24-05465-2

Initial Date of Issue: 03/Mar/2024 03/Mar/2024 **Date of Re-Issue:** 25/Mar/2024 25/Mar/2024

Re-Issue Details: This report has been revised and directly supersedes 24-05465-1 in its entirety This report has been revised and directly

Client: Terra Firma Terra Firma

Client Address: 5 Deryn Court
Wharfedale Road
Pentwyn
Cardiff
CF23 7HA 5 Deryn Court
Wharfedale Road
Pentwyn
Cardiff
CF23 7HA

Contact(s): aaron@terrafirmawales.co.uk
aaron@terrafirmawales.co.uk

Project: Ysgol Gymraeg Santes Tydfil, Merthyr

Quotation No.: **Date Received:** 23/Feb/2024 23/Feb/2024

Order No.: 18167-AC 18167-AC **Date Instructed:** 23/Feb/2024 23/Feb/2024

No. of Samples: 8 8

Turnaround (Wkdays): 5 5 **Results Due:** 29/Feb/2024 29/Feb/2024

Date Approved: 03/Mar/2024 03/Mar/2024

Approved By:

Details: Stuart Henderson, Technical Manager

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project:

Client: Terra Firma		Chemtest Job No.:		24-05465	24-05465	24-05465	24-05465	24-05465	24-05465	24-05465	24-05465	24-05465
Quotation No.:		Chemtest Sample ID.:		1770502	1770503	1770504	1770505	1770506	1770507	1770512	1770513	
Order No.: 18167-AC		Client Sample Ref.:		TP01	WS01	WS01	WS02	WS02	WS03			
		Client Sample ID.:		TP01	WS01	WS01	WS02	WS02	WS03	WS01	WS03	
		Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
		Top Depth (m):		0.50	0.20	0.60	0.10	0.60	0.40	1.00	2.00	
		Date Sampled:		21-Feb-2024	22-Feb-2024	22-Feb-2024	22-Feb-2024	22-Feb-2024	22-Feb-2024			
		Time Sampled:		12:00	12:00	12:00	12:00	12:00	12:00			
		Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM			
Determinand	HWOL Code	Accred.	SOP	Units	LOD							
ACM Type		U	2192		N/A	-	-	-	-	-	-	
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	
Moisture		N	2030	%	0.020	17	17	15	15	21	7.9	10 19
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Black Brown
Other Material		N	2040		N/A	Stones and Roots	Stones and Roots	Stones, Roots and Glass	Stones and Roots	Stones and Roots	Stones and Roots	Stones Stones
Soil Texture		N	2040		N/A	Clay	Clay	Clay	Clay	Clay	Clay	Sand Sand
pH at 20C		M	2010		4.0	8.2	8.6	8.2	8.2	7.5	8.6	
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	< 0.40	0.65	< 0.40	< 0.40	< 0.40	< 0.40	
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010			< 0.010	< 0.010		0.019	
Calorific Value		N	2140	MJ/kg	0.10							11 2.9
Total Sulphur		U	2175	%	0.010			0.099	0.072		0.21	
Cyanide (Complex)		M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Cyanide (Free)		M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Sulphate (Acid Soluble)		U	2430	%	0.010	0.050	0.040	0.047	< 0.010	< 0.010	0.077	
Arsenic		M	2455	mg/kg	0.5	6.3	10	6.9	2.8	3.1	9.8	
Beryllium		U	2455	mg/kg	0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Cadmium		M	2455	mg/kg	0.10	< 0.10	0.47	0.17	< 0.10	< 0.10	1.7	
Chromium		M	2455	mg/kg	0.5	9.6	16	14	5.5	8.0	9.1	
Mercury Low Level		N	2450	mg/kg	0.05	0.07	0.07	0.10	< 0.05	< 0.05	0.05	
Manganese		M	2455	mg/kg	1.0	310	1000	300	250	240	310	
Molybdenum		M	2455	mg/kg	0.5	0.8	0.9	0.8	< 0.5	< 0.5	3.4	
Antimony		N	2455	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Copper		M	2455	mg/kg	0.50	17	22	30	32	18	18	
Nickel		M	2455	mg/kg	0.50	14	17	15	13	14	14	
Lead		M	2455	mg/kg	0.50	25	93	41	18	22	49	
Selenium		M	2455	mg/kg	0.25	0.31	0.65	0.77	0.58	0.48	0.82	
Zinc		M	2455	mg/kg	0.50	63	120	98	35	44	180	
Chromium (Trivalent)		N	2490	mg/kg	1.0	9.6	16	14	5.5	8.0	9.1	
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	I/S	< 0.05	< 0.05	< 0.05	0.17	
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	I/S	< 0.05	< 0.05	< 0.05	< 0.05	
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	I/S	< 0.05	< 0.05	< 0.05	< 0.05	
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	I/S	< 0.10	< 0.10	< 0.10	< 0.10	
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	I/S	< 0.05	< 0.05	< 0.05	0.29	

Results - Soil

Project:

Client: Terra Firma		Chemtest Job No.:	24-05465	24-05465	24-05465	24-05465	24-05465	24-05465	24-05465	24-05465	24-05465
Quotation No.:		Chemtest Sample ID.:	1770502	1770503	1770504	1770505	1770506	1770507	1770512	1770513	
Order No.: 18167-AC		Client Sample Ref.:	TP01	WS01	WS01	WS02	WS02	WS03			
		Client Sample ID.:	TP01	WS01	WS01	WS02	WS02	WS03	WS01	WS03	
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
		Top Depth (m):	0.50	0.20	0.60	0.10	0.60	0.40	1.00	2.00	
		Date Sampled:	21-Feb-2024	22-Feb-2024	22-Feb-2024	22-Feb-2024	22-Feb-2024	22-Feb-2024			
		Time Sampled:	12:00	12:00	12:00	12:00	12:00	12:00			
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM			
Determinand	HWOL Code	Accred.	SOP	Units	LOD						
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	I/S	< 0.25	< 0.25	< 0.25	0.46
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	1.4	< 1.0	< 1.0	< 1.0	< 1.0	
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	3.6	10	4.9	< 3.0	< 3.0	< 3.0
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10	< 10	< 10	< 10	
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	7.0	13	< 5.0	< 5.0	< 5.0	< 5.0
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	13	< 10	< 10	< 10	< 10
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	I/S	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	I/S	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	I/S	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	I/S	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0	16	< 2.0	< 2.0	< 2.0	< 2.0
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	3.9	68	< 2.0	< 2.0	< 2.0	< 2.0
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	1.3	8.1	1.8	< 1.0	< 1.0	< 1.0
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	5.4	84	< 5.0	< 5.0	< 5.0	< 5.0
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	< 10	92	< 10	< 10	< 10	< 10
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	I/S	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	12	97	< 10	< 10	< 10	< 10
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	14	110	< 10	< 10	< 10	< 10
Loss on Ignition 440 (Fines)		U	2620	%	0.20						20
Group 1 & 2 Material > 20mm		N	2620	%	0.10						< 0.10
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	0.32	0.31	0.33	< 0.10	< 0.10	< 0.10
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	0.19	0.56	0.22	< 0.10	< 0.10	< 0.10
Pyrene		M	2800	mg/kg	0.10	0.19	0.52	0.20	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	0.33	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10	0.30	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	0.50	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	0.15	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	0.32	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project:

Client: Terra Firma		Chemtest Job No.:						24-05465	24-05465	24-05465	24-05465	24-05465	24-05465	24-05465
Quotation No.:		Chemtest Sample ID.:						1770502	1770503	1770504	1770505	1770506	1770507	1770513
Order No.: 18167-AC		Client Sample Ref.:						TP01	WS01	WS01	WS02	WS02	WS03	
		Client Sample ID.:						TP01	WS01	WS01	WS02	WS02	WS03	WS03
		Sample Type:						SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):						0.50	0.20	0.60	0.10	0.60	0.40	1.00
		Date Sampled:						21-Feb-2024	22-Feb-2024	22-Feb-2024	22-Feb-2024	22-Feb-2024	22-Feb-2024	
		Time Sampled:						12:00	12:00	12:00	12:00	12:00	12:00	
		Asbestos Lab:						DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	
Determinand	HWOL Code	Accred.	SOP	Units	LOD									
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	0.28	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	0.29	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	3.6	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	
Organic Matter BS1377		N	2930	%	0.10	3.9	5.7	5.1	5.3	5.3	5.3	3.2		

Results - 2 Stage WAC

Project: Ysgol Gymraeg Santes Tydfil, Merthyr

Chemtest Job No: 24-05465 Chemtest Sample ID: 1770503 Sample Ref: WS01 Sample ID: WS01 Sample Location: Top Depth(m): 0.20 Bottom Depth(m): Sampling Date: 22-Feb-2024							Landfill Waste Acceptance Criteria				
			Limits								
			Inert Waste Landfill				Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill			
Determinand									SOP	Accred.	Units
Total Organic Carbon									2625	M	%
Loss On Ignition									2610	M	%
Total BTEX									2760	M	mg/kg
Total PCBs (7 Congeners)									2815	M	mg/kg
TPH Total WAC									2670	M	mg/kg
Total (Of 17) PAH's			2700	N	mg/kg						
pH at 20C			2010	M							
Acid Neutralisation Capacity			2015	N	mol/kg						
Eluate Analysis					2:1 mg/l	8:1 mg/l	2:1 mg/kg	Cumulative mg/kg 10:1	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic			1455	U	0.0010	0.0007	0.0020	0.0071	0.5	2	25
Barium			1455	U	0.13	0.17	0.26	1.6	20	100	300
Cadmium			1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5
Chromium			1455	U	0.0011	0.0007	0.0022	0.0073	0.5	10	70
Copper			1455	U	0.0015	0.0007	0.0030	0.0017	2	50	100
Mercury			1455	U	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum			1455	U	0.0076	0.0012	0.015	0.019	0.5	10	30
Nickel			1455	U	0.0006	< 0.0005	0.0011	0.0006	0.4	10	40
Lead			1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.5	10	50
Antimony			1455	U	0.0010	< 0.0005	0.0019	0.0011	0.06	0.7	5
Selenium			1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.1	0.5	7
Zinc			1455	U	0.005	0.005	0.010	0.046	4	50	200
Chloride			1220	U	5.7	< 1.0	11	< 10	800	15000	25000
Fluoride			1220	U	0.17	0.12	< 1.0	1.3	10	150	500
Sulphate			1220	U	12	1.7	24	29	1000	20000	50000
Total Dissolved Solids			1020	N	130	36	250	460	4000	60000	100000
Phenol Index			1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-
Dissolved Organic Carbon			1610	U	4.3	< 2.5	< 50	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.175
Moisture (%)	15

Leachate Test Information	
Leachant volume 1st extract/l	0.320
Leachant volume 2nd extract/l	1.400
Eluant recovered from 1st extract/l	0.196

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - 2 Stage WAC

Project: Ysgol Gymraeg Santes Tydfil, Merthyr

Chemtest Job No: 24-05465							Landfill Waste Acceptance Criteria			
Chemtest Sample ID: 1770506							Limits			
Sample Ref: WS02							Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Sample ID: WS02										
Sample Location:										
Top Depth(m): 0.60										
Bottom Depth(m):										
Sampling Date: 22-Feb-2024										
Determinand	SOP	Accred.	Units							
Total Organic Carbon	2625	M	%				0.22	3	5	6
Loss On Ignition	2610	M	%				7.8	--	--	10
Total BTEX	2760	M	mg/kg				< 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg				< 0.10	1	--	--
TPH Total WAC	2670	M	mg/kg				62	500	--	--
Total (Of 17) PAH's	2700	N	mg/kg				< 2.0	100	--	--
pH at 20C	2010	M					7.5	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg				0.0050	--	To evaluate	To evaluate
Eluate Analysis			2:1 mg/l	8:1 mg/l	2:1 mg/kg	Cumulative mg/kg 10:1	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg			
Arsenic	1455	U	0.0006	0.0012	0.0013	0.011	0.5	2	25	
Barium	1455	U	0.068	0.027	0.13	0.31	20	100	300	
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5	
Chromium	1455	U	0.0011	0.0009	0.0022	0.0091	0.5	10	70	
Copper	1455	U	0.0027	0.0020	0.0053	0.0028	2	50	100	
Mercury	1455	U	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.01	0.2	2	
Molybdenum	1455	U	0.0068	0.0014	0.013	0.019	0.5	10	30	
Nickel	1455	U	0.0011	0.0009	0.0021	0.0094	0.4	10	40	
Lead	1455	U	< 0.0005	0.0007	< 0.0005	0.0062	0.5	10	50	
Antimony	1455	U	0.0009	< 0.0005	0.0019	0.0010	0.06	0.7	5	
Selenium	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.1	0.5	7	
Zinc	1455	U	0.017	0.011	0.034	0.11	4	50	200	
Chloride	1220	U	< 1.0	< 1.0	< 10	< 10	800	15000	25000	
Fluoride	1220	U	0.27	0.12	< 1.0	1.3	10	150	500	
Sulphate	1220	U	6.7	< 1.0	13	< 10	1000	20000	50000	
Total Dissolved Solids	1020	N	140	40	280	500	4000	60000	100000	
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-	
Dissolved Organic Carbon	1610	U	6.9	5.2	< 50	54	500	800	1000	

Solid Information	
Dry mass of test portion/kg	0.175
Moisture (%)	17

Leachate Test Information	
Leachant volume 1st extract/l	0.314
Leachant volume 2nd extract/l	1.400
Eluant recovered from 1st extract/l	0.178

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - 2 Stage WAC

Project: Ysgol Gymraeg Santes Tydfil, Merthyr

Chemtest Job No: 24-05465							Landfill Waste Acceptance Criteria			
Chemtest Sample ID: 1770507							Limits			
Sample Ref: WS03							Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Sample ID: WS03										
Sample Location:										
Top Depth(m): 0.40										
Bottom Depth(m):										
Sampling Date: 22-Feb-2024										
Determinand	SOP	Accred.	Units							
Total Organic Carbon	2625	M	%				4.2	3	5	6
Loss On Ignition	2610	M	%				3.4	--	--	10
Total BTEX	2760	M	mg/kg				< 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg				< 0.10	1	--	--
TPH Total WAC	2670	M	mg/kg				80	500	--	--
Total (Of 17) PAH's	2700	N	mg/kg				< 2.0	100	--	--
pH at 20C	2010	M					8.6	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg				0.091	--	To evaluate	To evaluate
Eluate Analysis			2:1 mg/l	8:1 mg/l	2:1 mg/kg	Cumulative mg/kg 10:1	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg			
Arsenic	1455	U	0.0003	0.0003	0.0006	0.0031	0.5	2	25	
Barium	1455	U	0.15	0.29	0.30	2.7	20	100	300	
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5	
Chromium	1455	U	0.0009	0.0009	0.0018	0.0092	0.5	10	70	
Copper	1455	U	0.0010	< 0.0005	0.0020	0.0010	2	50	100	
Mercury	1455	U	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.01	0.2	2	
Molybdenum	1455	U	0.047	0.0060	0.094	0.10	0.5	10	30	
Nickel	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.4	10	40	
Lead	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.5	10	50	
Antimony	1455	U	0.0006	< 0.0005	0.0012	0.0006	0.06	0.7	5	
Selenium	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.1	0.5	7	
Zinc	1455	U	0.005	0.003	0.010	0.028	4	50	200	
Chloride	1220	U	3.4	< 1.0	< 10	< 10	800	15000	25000	
Fluoride	1220	U	0.63	0.27	1.3	3.1	10	150	500	
Sulphate	1220	U	17	3.3	34	47	1000	20000	50000	
Total Dissolved Solids	1020	N	120	41	240	490	4000	60000	100000	
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-	
Dissolved Organic Carbon	1610	U	4.4	< 2.5	< 50	< 50	500	800	1000	

Solid Information	
Dry mass of test portion/kg	0.175
Moisture (%)	7.4

Leachate Test Information	
Leachant volume 1st extract/l	0.336
Leachant volume 2nd extract/l	1.400
Eluant recovered from 1st extract/l	0.182

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity at 25°C and Total Dissolved Solids (TDS) in Waters	Conductivity Meter	
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.	
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).	
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation	
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.	
2010	pH Value of Soils	pH at 20°C	pH Meter	
2015	Acid Neutralisation Capacity	Acid Reserve	Titration	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2140	Calorific Value	Calorific Value	Bomb Calorimeter	
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.	
2620	LOI 440	LOI 440 Trommel Fines	Determination of the proportion by mass that is lost from a soil by ignition at 440°C.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8-C10 Aromatics: >C5–C7,>C7-C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS. Reported PCB 101 results may contain contributions from PCB 90 due to inseparable chromatography.	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	
2930	Organic Matter	Organic Matter	Acid Dichromate digestion/Titration	
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge	
650	Characterisation of Waste (Leaching WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge	

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

Water Sample Category Key for Accreditation

- DW - Drinking Water
- GW - Ground Water
- LE - Land Leachate
- NA - Not Applicable
- PL - Prepared Leachate
- PW - Processed Water

Report Information

RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

ANNEX H
Laboratory Soil Geotechnical Test
Results



Results Summary

Apex Testing Solutions Limited

Sturmi Way
Village Farm Industrial Estate
Pyle
Bridgend
CF33 6BZ

Telephone: 01656 746762

E-mail: andrew.grogan@apex-drilling.com

laura.davis@apex-drilling.com

<u>Reporting Details</u>		<u>Key Information</u>	
Company Name:	TFW Group Ltd	Site Name:	Ysgol Gymraeg Santes Tudful
Address:	5 Deryn Court Wharfdale Road Cardiff CF23 7HA	Job Number:	D24087
Contact Name:	Aaron	Date Received:	22/02/2024
Contact Number:		Job Coordinator:	A. Grogan

Item No.	Tests Undertaken	Number of Tests
1	Water Content - ISO 17892 2014+A1:2022	2
2	Atterburg Limits (4 point) - BS1377-2: 1990	2

Results Issued: 27/02/2024

Comments

Results herein relate only to samples received in the laboratory and where not sampled by Apex Testing Solutions personnel relate to the samples as received.

Where tests are UKAS accredited any Opinion and/or Interpretation expressed herein are outside the scope of the UKAS Accreditation. The reports shall not be reproduced in full without the written approval of the laboratory.

Please contact the job coordinator should any further information be required.

TEST REPORT

Determination Of Water Content

ISO 17892-1: 2014+A1:2022

Project No: D24087
Project Name: 18167 - Ysgol Gymraeg Santes
Tudful

Client: TFW Group Ltd
Address: 5 Deryn Court
Wharfdale Road
Cardiff
CF23 7HA

ATS Sample No: 35954

Site Ref / Hole ID: WS01

Sample No:

**Sampling Certificate
Received:** No

Depth (m): 1.50

Sample Type: Disturbed

Material Description: Brownish grey slightly
gravelly CLAY

Location in Works: N/a

Material Source: Ex-Site

Date Sampled: Unknown

Material Supplier: Ex-Site

Sampled By: Client

Specification: ISO 17892-1

Date Received: 22 February 2024

Date Tested: 23 February 2024

Test Results

Moisture Content (%)

21.9

Remarks:

QA Ref.

EN ISO 17892-
1:2014 A1:2022



Apex Testing Solutions

Sturmi Way, Village Farm Industrial Est,
Pyle, Bridgend, CF33 6BZ

Tel: 01656 746762 Fax: 01656 749096



7771

Approver

L Davis

Date

27/02/2024

L Davis, Quality Manager

Fig

MC

TEST REPORT																	
LIQUID LIMIT, PLASTIC LIMIT & PLASTICITY INDEX																	
BS 1377:Part 2:1990. Clause 4.3/5.3/5.4																	
Project No: D24087		Client: TFW Group Ltd															
Project Name: 18167 - Ysgol Gymraeg Santes Tudful		Address: 5 Deryn Court Wharfdale Road Cardiff CF23 7HA															
ATS Sample No: 35954																	
Site Ref / Hole ID: WS01		Depth (m): 1.50															
Sample No:		Sample Type: Disturbed															
Sampling Certificate Received: No		Material Description: Brownish grey slightly gravelly CLAY															
Location in Works: N/a		Material Source: Ex-Site															
Date Sampled: Unknown		Material Supplier: Ex-Site															
Sampled By: Client		Specification: BS1377															
Date Received: 22 February 2024		Date Tested: 26 February 2024															
Test Results																	
<table><tr><td>Liquid Limit</td><td>39</td><td>%</td></tr><tr><td>Plastic Limit</td><td>20</td><td>%</td></tr><tr><td>Plasticity Index</td><td>19</td><td>%</td></tr></table>		Liquid Limit	39	%	Plastic Limit	20	%	Plasticity Index	19	%	<table><tr><td>Preparation:</td><td>4.2.4 Sieved Specimen</td></tr><tr><td>Proportion retained on 425µm sieve:</td><td>13 %</td></tr></table>			Preparation:	4.2.4 Sieved Specimen	Proportion retained on 425µm sieve:	13 %
Liquid Limit	39	%															
Plastic Limit	20	%															
Plasticity Index	19	%															
Preparation:	4.2.4 Sieved Specimen																
Proportion retained on 425µm sieve:	13 %																
Remarks:																	
QA Ref.	Apex Testing Solutions Sturmi Way, Village Farm Industrial Est, Pyle, Bridgend, CF33 6BZ Tel: 01656 746762 Fax: 01656 749096		Approver	Date	Fig. ATT												
BS1377 - 2 Rev. 3.0			<i>L Davis</i> L Davis, Quality Manager	27/02/2024													
		7771															

TEST REPORT

Determination Of Water Content

ISO 17892-1: 2014+A1:2022

Project No: D24087
Project Name: 18167 - Ysgol Gymraeg Santes
Tudful

Client: TFW Group Ltd
Address: 5 Deryn Court
Wharfdale Road
Cardiff
CF23 7HA

ATS Sample No: 35955

Site Ref / Hole ID: WS02

Sample No:

**Sampling Certificate
Received:** No

Location in Works: N/a

Date Sampled: Unknown

Sampled By: Client

Date Received: 22 February 2024

Depth (m): 2.50

Sample Type: Disturbed

Material Description: Brownish grey slightly
sandy slightly gravelly
CLAY

Material Source: Ex-Site

Material Supplier: Ex-Site

Specification: ISO 17892-1

Date Tested: 23 February 2024

Test Results

Moisture Content (%)

19.6

Remarks:

QA Ref.

EN ISO 17892-
1:2014 A1:2022



Apex Testing Solutions

Sturmi Way, Village Farm Industrial Est,
Pyle, Bridgend, CF33 6BZ

Tel: 01656 746762 Fax: 01656 749096



7771

Approver

L Davis

Date

27/02/2024

L Davis, Quality Manager

Fig

MC

TEST REPORT

LIQUID LIMIT, PLASTIC LIMIT & PLASTICITY INDEX

BS 1377:Part 2:1990. Clause 4.3/5.3/5.4

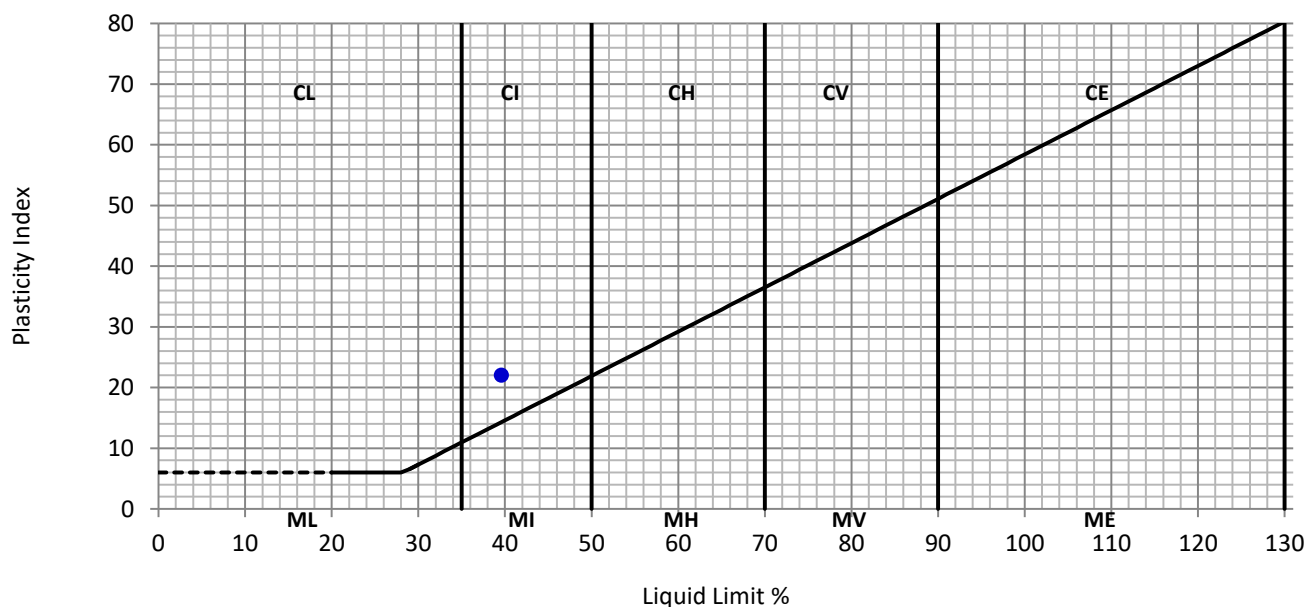
Project No:	D24087	Client:	TFW Group Ltd
Project Name:	18167 - Ysgol Gymraeg Santes Tudful	Address:	5 Deryn Court Wharfdale Road Cardiff CF23 7HA
ATS Sample No:	35955		

Site Ref / Hole ID:	WS02	Depth (m):	2.50
Sample No:		Sample Type:	Disturbed
Sampling Certificate Received:	No	Material Description:	Brownish grey slightly sandy slightly gravelly CLAY
Location in Works:	N/a	Material Source:	Ex-Site
Date Sampled:	Unknown	Material Supplier:	Ex-Site
Sampled By:	Client	Specification:	BS1377
Date Received:	22 February 2024	Date Tested:	26 February 2024

Test Results

Liquid Limit	40	%
Plastic Limit	18	%
Plasticity Index	22	%

Preparation:	4.2.4 Sieved Specimen
Proportion retained on 425µm sieve:	19 %



Remarks:

QA Ref.

BS1377 - 2
Rev. 3.0



Apex Testing Solutions

Sturmi Way, Village Farm Industrial Est, Pyle,
Bridgend, CF33 6BZ
Tel: 01656 746762 Fax: 01656 749096



7771

Approver

L Davis

L Davis, Quality Manager

Date

27/02/2024

Fig.

ATT

ANNEX I
Gas Monitoring Results

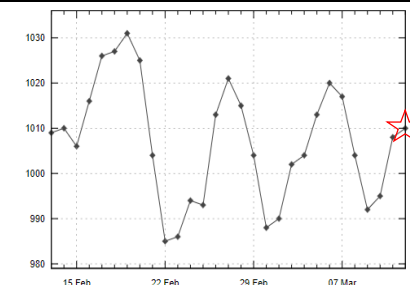


The graph plots the number of cases against time. The Y-axis represents the number of cases, with major ticks at 980, 990, 1000, 1010, 1020, and 1030. The X-axis shows dates from 15 Feb to 07 Mar. The data points are connected by a line, showing a peak around 21 Feb (approx. 1030 cases), a sharp drop to a minimum around 22 Feb (approx. 985 cases), and then a series of fluctuations with a notable peak around 28 Feb (approx. 1022 cases) marked by a red star.

Date	Number of Cases (approx.)
15 Feb	1010
16 Feb	1008
17 Feb	1015
18 Feb	1025
19 Feb	1028
20 Feb	1025
21 Feb	1030
22 Feb	985
23 Feb	988
24 Feb	995
25 Feb	992
26 Feb	1022
27 Feb	1015
28 Feb	1022
29 Feb	1005
01 Mar	988
02 Mar	1002
03 Mar	1005
04 Mar	1020
05 Mar	1018
06 Mar	1002
07 Mar	992
08 Mar	1000

Equipment/Serial: G506329

[illegible]

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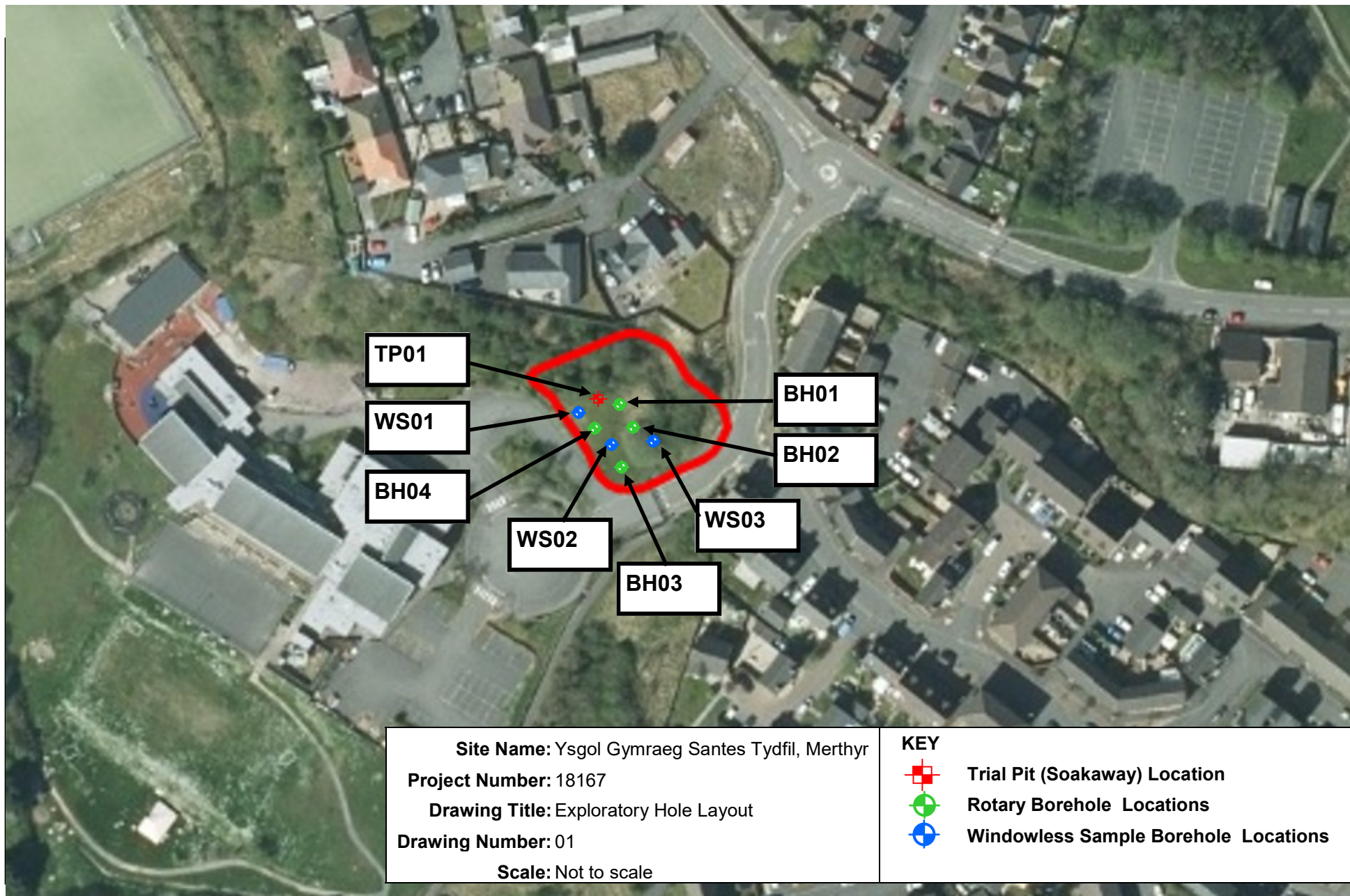
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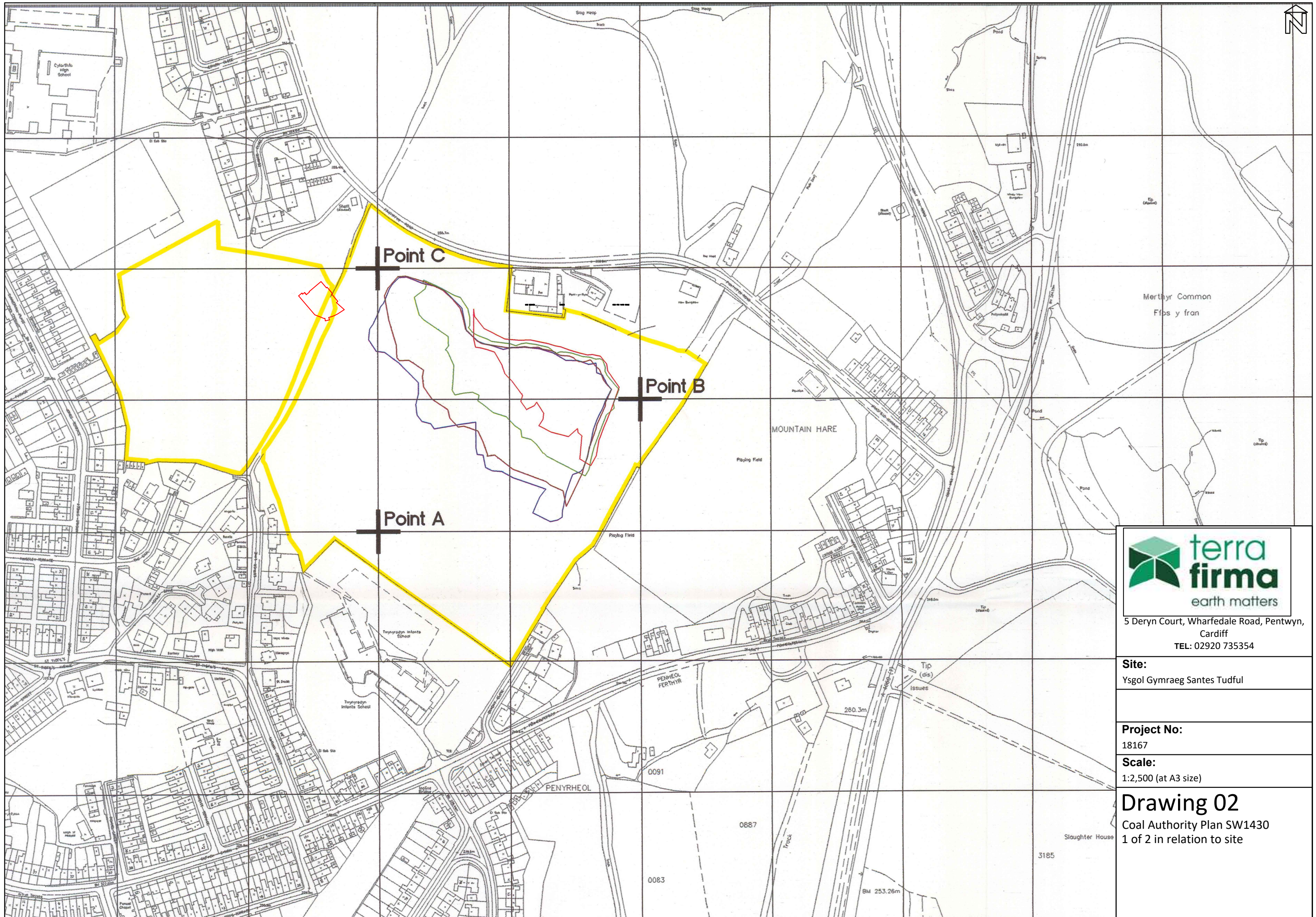
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Drawings





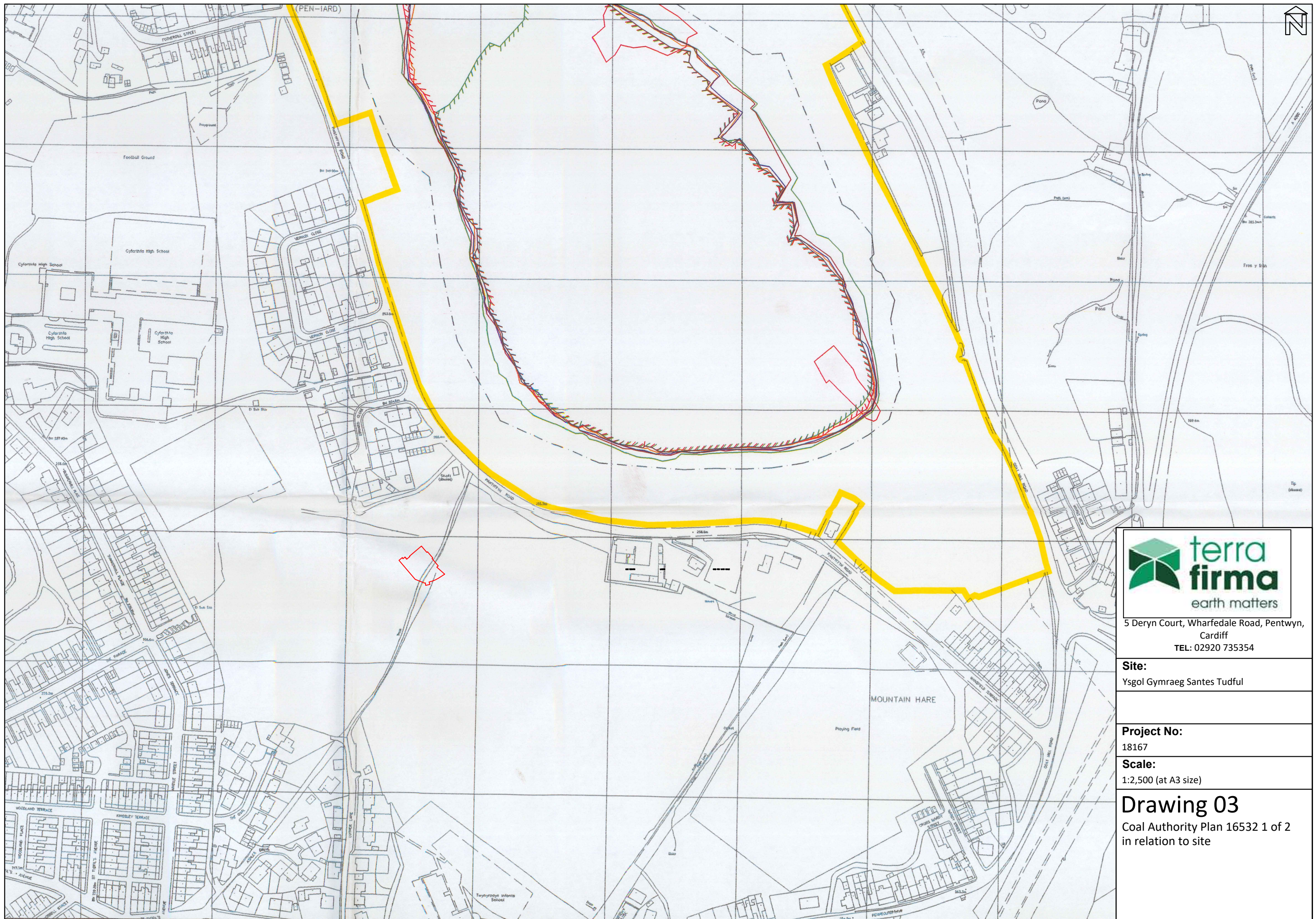
5 Deryn Court, Wharfedale Road, Pentwyn,
Cardiff
TEL: 02920 735354

Site:
Ysgol Gymraeg Santes Tudful

Project No:
18167

Scale:
1:2,500 (at A3 size)

Drawing 02
Coal Authority Plan SW1430
1 of 2 in relation to site



5 Deryn Court, Wharfedale Road, Pentwyn,
Cardiff
TEL: 02920 735354

Site:
Ysgol Gymraeg Santes Tudful

Project No:
18167

Scale:
1:2,500 (at A3 size)

Drawing 03
Coal Authority Plan 16532 1 of 2
in relation to site



Terra Firma (Wales) Ltd. 5 Deryn Court, Wharfedale Road, Pentwyn, Cardiff CF23 7HA
Tel: 029 2073 5354 **Fax:** 029 2073 5433 **Email:** info@terrafirmawales.co.uk www.terrafirmawales.co.uk